X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags have been summarized at the end of the report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach Semivolatiles - Data Qualification Summary - SDG IQC1776

SDG	Sample	Compound	Flag	A or P	Reason
IQC1776	MW3017_WG031507_0001	1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Hexachlorobutadiene Hexachlorobutadiene Hexachlorobenzene Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) anthracene Benzo (a) anthracene Benzyl alcohol Bis (2-chloroethoxy) methane Bis (2-chloroethoxy) methane Bis (2-chloroisopropyl) ether Bis (2-chloro	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD)
		1,2-Diphenylhydrazine/Azobenzene			

Boeing Realty Corp., Bldg C-1 Long Beach Semivolatiles - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG



ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach

EM-2701

Sampled: 03/15/07

701 N. Parkcenter Drive Santa Ana, CA 92705

Report Number: IQC1776

Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1776-04 (MW3017_W	G031507_0001 - Wa	ater)							
Reporting Units: ug/i									
Acenaphthene	EPA 8270C	7C16066	1.9	9.5	NDU	0.948	03/16/07	03/20/07	
Acenaphthylene	EPA 8270C	7C16066	1.9	9.5	ND 🕽	0.948	03/16/07	03/20/07	
Aniline	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Anthracene	EPA 8270C	7C16066	1.9	9.5	ND (0.948	03/16/07	03/20/07	
Benzidine	EPA 8270C	7C16066	8.1	19	ND	0.948	03/16/07	03/20/07	
Benzoic acid	EPA 8270C	7C16066	8.1	19	ND	0.948	03/16/07	03/20/07	
Benzo(a)anthracene	EPA 8270C	7C16066	1.9	9.5	KD (J	0.948	03/16/07	03/20/07	
Benzo(b)fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Benzo(k)fluoranthene	EPA 8270C	7 C16066	1.9	9.5	NDY	0.948	03/16/07	03/20/07	
Benzo(g,h,i)perylene	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	
Benzo(a)pyrene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Benzyl alcohol	EPA 8270C	7C16066	2.4	19	ND	0.948	03/16/07	03/20/07	
Bis(2-chloroethoxy)methane	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-chloroethyl)ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-chloroisopropyl)ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Bis(2-ethylhexyl)phthalate	EPA 8270C	7C16066	3.8	47	ND	0.948	03/16/07	03/20/07	
4-Bromophenyl phenyl ether	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Butyl benzyl phthalate	EPA 8270C	7C16066	3.8	19	ND	0.948	03/16/07	03/20/07	
4-Chloroaniline	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2-Chloronaphthalene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4-Chloro-3-methylphenol	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
2-Chlorophenol	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4-Chlorophenyl phenyl ether	EPA 8270C	7 C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Chrysene	EPA 8270C	7 C16066	1.9	9.5	ND ❖	0.948	03/16/07	03/20/07	
Dibenz(a,h)anthracene	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
Dibenzofuran	EPA 8270C	7C16066	1.9	9.5	ND V	0.948	03/16/07	03/20/07	
Di-n-butyl phthalate	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
1,3-Dichlorobenzene	EPA 8270C	7C16066	2.8	9.5	ND U	0.948	03/16/07	03/20/07	L2
1,4-Dichlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	L2
1,2-Dichlorobenzene	EPA 8270C	7C16066	2.8	9.5	ND	0.948	03/16/07	03/20/07	L2
3,3-Dichlorobenzidine	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
2,4-Dichlorophenol	EPA 8270C	7C16066	1.9	9.5	ND 🗸	0.948	03/16/07	03/20/07	
Diethyl phthalate	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2,4-Dimethylphenol	EPA 8270C	7C16066	3.3	19	NDV	0.948	03/16/07	03/20/07	
Dimethyl phthalate	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
4,6-Dinitro-2-methylphenol	EPA 8270C	7C16066	3.8	19	ND	0.948	03/16/07	03/20/07	
2,4-Dinitrophenol	EPA 8270C	7C16066	4.3	19	ND UJ	0.948	03/16/07	03/20/07	
2,4-Dinitrotoluene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
2,6-Dinitrotoluene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
Di-n-octyl phthalate	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
Fluoranthene	EPA 8270C	7C16066	1.9	9.5	ND ∜	0.948	03/16/07	03/20/07	

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

701 N. Parkcenter Drive

Santa Ana, CA 92705

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Diluti Result Fact	on Date or Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017_WG0	31507 0001 . W	iter) - cont						
Reporting Units: ug/l	31307_0001 - 112	iter) - cont						
Fluorene	EPA 8270C	7C16066	1.9	9.5	ND 45 0.94	8 03/16/07	03/20/07	
Hexachlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND 0.94	8 03/16/07	03/20/07	
Hexachlorobutadiene	EPA 8270C	7C16066	3.3	9 .5	ND 0.94	8 03/16/07	03/20/07	L2
Hexachlorocyclopentadiene	EPA 8270C	7C16066	4.7	19	ND 0.94	8 03/16/07	03/20/07	
Hexachloroethane	EPA 8270C	7C16066	2.8	9 .5	ND ₹ 0.94	B 03/16/07	03/20/07	L2
Indeno(1,2,3-cd)pyrene	EPA 8270C	7C16066	2.8	19	ND 0.94	8 03/16/07	03/20/07	
Isophorone	EPA 8270C	7C16066	1.9	9.5	ND UJ 0.94	8 03/16/07	03/20/07	
2-Methylnaphthalene	EPA 8270C	7C16066	1.9	9.5	13 . 5 0.94	8 03/16/07	03/20/07	
2-Methylphenol	EPA 8270C	7C16066	1.9	9.5	ND UJ 0.94	8 03/16/07	03/20/07	
4-Methylphenol	EPA 8270C	7C16066	1.9	9.5	ND ↓ 0.94	8 03/16/07	03/20/07	
Naphthalene	EPA 8270C	7C16066	2.4	9.5	16 J 0.94	8 03/16/07	03/20/07	
2-Nitroaniline	EPA 8270C	7C16066	1.9	19	ND U 0.94	3 03/16/07	03/20/07	
3-Nitroaniline	EPA 8270C	7C16066	1.9	19	ND 0.94	3 03/16/07	03/20/07	
4-Nitroaniline	EPA 8270C	7C16066	2.4	19	ND 0.94	8 03/16/07	03/20/07	
Nitrobenzene	EPA 8270C	7C16066	2.4	19	ND 0.94		03/20/07	
2-Nitrophenol	EPA 8270C	7C16066	3.3	9.5	ND 🕹 0.94	3 03/16/0 7	03/20/07	
4-Nitrophenol	EPA 8270C	7C16066	5.2	19	ND 0.94		03/20/07	
N-Nitrosodiphenylamine	EPA 8270C	7C16066	1.9	9 .5	ND UJ 0.94	3 03/16/07	03/20/07	
N-Nitroso-di-n-propylamine	EPA 8270C	7C16066	2.4	9.5	ND 🕽 0.94	8 03/16/07	03/20/07	С
Pentachlorophenol	EPA 8270C	7C16066	3.3	19	ND 0.94		03/20/07	
Phenanthrene	EPA 8270C	7C16066	1.9	9.5	ND UJ 0.94	3 03/16/07	03/20/07	
Phenol	EPA 8270C	7C16066	1.9	9.5	ND ↓ 0.94	3 03/16/07	03/20/07	
Pyrene	EPA 8270C	7C16066	1.9	9.5	ND 0.94		03/20/07	
1,2,4-Trichlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND VI 0.94	3 03/16/07	03/20/07	L2
2,4,5-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND ↓ 0.94	3 03/16/07	03/20/07	
2,4,6-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND 0.94		03/20/07	
N-Nitrosodimethylamine	EPA 8270C	7C16066	2.4	19	ND 4 € 0.94		03/20/07	
1,2-Diphenylhydrazine/Azobenzene	EPA 8270C	7C16066	1.9	19	ND 0.94	03/16/07	03/20/07	С
Surrogate: 2-Fluorophenol (30-120%)					65 %			
Surrogate: Phenol-d6 (35-120%)					73 %			
Surrogate: 2,4,6-Tribromophenol (40-120%	5)				83 %			
Surrogate: Nitrobenzene-d5 (40-120%)					79 %			
Surrogate: 2-Fluorobiphenyl (45-120%)					67 %			
Surrogate: Terphenyl-d14 (45-120%)					71%			

TestAmerica - Irvine, CA Nicholas Marz

Project Manager

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LDC #: 16591B2	VALIDATION COMPLETENESS WORKSHEET	
SDG #: IQC1776	Tier 3	
Laboratory: Test America	· · · · · · · · · · · · · · · · · · ·	R

Date:	4/26/07
Page:_	<u></u>
Reviewer:	
2nd Reviewer:	1

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
1.	Technical holding times	Δ	Sampling dates: 3 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
11.	GC/MS Instrument performance check	A	
111.	Initial calibration	۵	% PSD, 12 20,990
IV.	Continuing calibration	Δ	1cv = 25
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	2	client specified
VIII.	Laboratory control samples	SW	Les IP
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	4	
XI.	Target compound identification	Д	
XII.	Compound quantitation/CRQLs	Δ	
XIII.	Tentatively identified compounds (TICs)	7	not reported
XIV.	System performance	۵	J
XV.	Overall assessment of data	A	
XVI.	Field duplicates	2	
XVII.	Field blanks	7	

Note:

A = Acceptable

N = Not provided/applicable SW = See worksheet

ND = No compounds detected

R = Rinsate

D = Duplicate

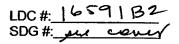
TB = Trip blank

FB = Field blank

EB = Equipment blank

Validated Samples:

1	MW3017-WG031507_0001	11	7016066-BLK)	21	31	
2		12		22	32	
3		13		23	33	
4		14		24	34	
5		15		25	35	
6		16		26	36	
7		17		27	37	
8		18		28	38	
9		19		29	39	
10		20		30	40	

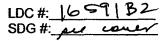


VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: 2nd Reviewer: 1

Method: Semivolatiles (EPA SW 846 Method 8270C)

Validation Area	\	T	T.,,	<i>5</i>
Fecunical Dangaines	Yes	No	NA	Findings/Comments
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
The Georgia di singularita despossible despesa				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	/			
Ills follar elliparion				
Did the laboratory perform a 5 point calibration prior to sample analysis?	1			
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	V			
Was a curve fit used for evaluation?				
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?				
Were all percent relative standard deviations (%RSD) \leq 30% and relative response factors (RRF) \geq 0.05?	<u></u>			
IV Continuing calibration				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?		-		
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Were all percent differences (%D) \leq 25% and relative response factors (RRF) \geq 0.05?				
V Blanks				
Was a method blank associated with every sample in this SDG?				
Was a method blank analyzed for each matrix and concentration?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
M Surrogate spikes 1973 1973 1974 1975 1975 1975 1975 1975 1975 1975 1975				Property of the Commission of
Were all surrogate %R within QC limits?				
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?			/	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?				
VII Matrix spike/Matrix spike duplicates (1.12)				And the second s
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.				
Was a MS/MSD analyzed every 20 samples of each matrix?			4	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			_	
Will Laboratory control samples	J			
Was an LCS analyzed for this SDG?		1		



VALIDATION FINDINGS CHECKLIST

Page:_	-70f_2
Reviewer:	<u>B</u>
2nd Reviewer:	1

	_			
Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?				
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?				
Destagorán galigy assuránce and Oxallo Como de Assessor de Como de				
Were performance evaluation (PE) samples performed?				
Were the performance evaluation (PE) samples within the acceptance limits?	CONTRACTOR SE	Makang a car		
is in Granda Britania				
Were internal standard area counts within -50% or +100% of the associated calibration standard?				·
Were retention times within ± 30 seconds from the associated calibration standard?				
Consider the control and the control of the control				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?				
Did compound spectra meet specified EPA "Functional Guidelines" criteria?				
Were chromatogram peaks verified and accounted for?				
XII/Eompound quantitation/CRQLs				CHARLES OF STREET
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?		-		
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		1		
XIIIsTenativev klantijedsotupopies (TICs)				A. D. Christian
Were the major ions (> 10 percent relative intensity) in the reference spectrum				
evaluated in sample spectrum?			_	
Were relative intensities of the major ions within \pm 20% between the sample and the reference spectra?				
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?				
XIV System performance				
System performance was found to be acceptable.				
XV Overall assessment of data				
Overall assessment of data was found to be acceptable.				
XVI (Field duplicates 2)				
Field duplicate pairs were identified in this SDG.				
Target compounds were detected in the field duplicates.				/
XVII Field blanks				
Field blanks were identified in this SDG.				
Target compounds were detected in the field blanks.			سيد	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Pheno!**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachiorophenoi**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenoi**	FF. 3-Nitroaniline	UU. Phenanthrene	JJJ. indeno(1,2,3-cd)pyrene
C. 2-Chlorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chioroaniline	II. 4-Nitrophenoi*	XX. Di-n-butyiphthalate	MMM. Bis(2-Chiorolsopropyl)ether
F. 1,2-Dichiorobenzene	U. Hexachiorobutadiene**	JJ, Dibenzofuran	YY. Fluoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chioro-3-methylphenol**	KK. 2,4-Dinitrotojuene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzyiphthalate	PPP. Benzolc Acid
i. 4-Methylphenoi	X. Hexachlorocyclopentadlene*	MM. 4-Chiorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propyiamine*	Y. 2,4,6-Trichiorophenoi**	NN. Fluorene	CCC. Benzo(a) anthracene	RRR. Pyridine
K. Hexachioroethane	Z. 2,4,5-Trichiorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenoi	EEE. Bis (2-ethylhexyl) phthalate	T. A TO buy one
M. Isophorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)**	FFF, Di-n-octyiphthalate**	uuu.
N. 2-Nitrophenoi**	CC. Dimethylphthálate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	ww
O. 2,4-Dimethyiphenoi	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	WWW.

VALIDATION FINDINGS WORKSHEET

LDC #: 1657/18/ SDG #: 1/8 9/17/6

Laboratory Control Samples (LCS)

Page:

2nd Reviewer: Reviewer:

Phease see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

| N/A | N/A | Was a LCS required? METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

								<u>Q</u>	_																
Qualifications	2/11/1	v					>	R20'5 all 114	2																
Associated Samples	A11 + B112						*	abbached La	+ ; " U																
RPD (Limits))				-)) pe abo																	
LCSD %R (Limits)	()	()	((()	()	()	())	()	`		``	`	_		•	`		(' '		,)		(
LCS %R (Limits)	1021-361 62	1001-25, 46	35 (40-120)	$ \cdot $	1021-25) 32	Oct-Sh, 1h	()	()	(()	()	()	()	((()		,	())		()	()	()
Compound	۵	Ü	닢	Z	Y	8										•									
rcs/rcsD iD	7016066-Les 10																								
Date																									
*																									



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TAIT Environmental/Boeing

701 N. Parkcenter Drive Santa Ana, CA 92705

Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07							0				4 mm.
Daten: /C10000 Extracted: 05/10/0/	<u>-</u>										
Blank Analyzed: 03/19/2007 (7C16066-B	LK1)										
Surrogate: Phenol-d6	13.6			ug/l	20.0	•	68	35-120			
Surrogate: 2,4,6-Tribromophenol	13.2			ug/l	20.0		66	40-120		•	
Surrogate: Nitrobenzene-d5	5.90			ug/l	10.0		59	40-120			
Surrogate: 2-Fluorobiphenyl	7.14			ug/l	10.0		71	45-120			
Surrogate: Terphenyl-d14	7.38			ug/l	10.0		74	45-120			
LCS Analyzed: 03/19/2007 (7C16066-BS	1)										MNR1
Acenaphthene	64.6	10	2.0	ug/I	100		65	55-120			
Acenaphthylene	72.4	10	2.0	ug/l	100		72	60-120			
Aniline	78.3	10	2.5	ug/l	100		78	40-120			
Anthracene	72.1	10	2.0	ug/l	100		72	60-120			
Benzidine	147	20	8.5	ug/I	100		147	25-160			
Benzoic acid	31.7	20	8.5	ug/l	100		32	25-120			
Benzo(a)anthracene	71.5	10	2.0	ug/l	100		72	60-120			
Benzo(b)fluoranthene	82.5	10	2.0	ug/l	100		82	55-125			
Benzo(k)fluoranthene	82.9	10	2.0	ug/l	100		83	50-125			
Benzo(g,h,i)perylene	98.0	10	3.0	ug/I	100		98	45-130			
Benzo(a)pyrene	88.8	10	2.0	ug/I	100		89	55-125			
Benzyl alcohol	61.3	20	2.5	ug/i	100		61	50-120			
Bis(2-chloroethoxy)methane	62,3	10	2.0	ug/l	100		62	55-120			
Bis(2-chloroethyl)ether	54.6	10	2.5	ug/i	100		55	50-120			
Bis(2-chloroisopropyl)ether	55.2	10	2.5	ug/l	100		55	45-120			
Bis(2-ethylhexyl)phthalate	69.2	50	4.0	ug/l	100		69	60-125			
4-Bromophenyl phenyl ether	66.5	10	2.5	ug/l	100		66	55-120			
Butyl benzyl phthalate	68.1	20	4.0	ug/l	100		68	50-125			
4-Chloroaniline	63.7	10	2.0	ug/l	100		64	50-120			
2-Chloronaphthalene	61.8	10	2.0	ug/l	100		62	55-120			
4-Chloro-3-methylphenol	61.4	20	2.0	ug/l	100		61	55-120			
2-Chlorophenol	57.6	10	2.0	ug/i	100		58	45-120			
4-Chlorophenyl phenyl ether	63.9	10	2.0	ug/l	100		64	60-120			
Chrysene	69.5	10	2.0	ug/l	100		70	60-120			
Dibenz(a,h)anthracene	94.5	20	3.0	ug/l	100		94	50-135			
Dibenzofuran	64.0	10	2.0	ug/l	100		64	60-120			
Di-n-butyl phthalate	75.7	20	2.0	ug/i	100		76	55-125			
1,3-Dichlorobenzene	29.3	10	3.0	ug/l	100		29	35-120	D		L2
1,4-Dichlorobenzene	34.4	10	2.5	ug/I	100		34	35-120 €	;		L2
Total manies Imina CA				_				_			

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

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ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive Santa Ana, CA 92705

Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

		Reporting			Spike	Source		%REC	;	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7C16066 Extracted: 03/16/0	<u>7</u>										
LCS Analyzed: 03/19/2007 (7C16066-BS	S1)										- MNR1
1,2-Dichlorobenzene	35.3	10	3.0	ug/i	100		35	40-120	F		L2
3,3-Dichlorobenzidine	68.8	20	3.0	ug/i	100		69	50-135			
2,4-Dichlorophenol	56.7	10	2.0	ug/i	100		57	50-120			
Diethyl phthalate	69.3	10	2.0	ug/i	100		69	50-120			
2,4-Dimethylphenol	45.8	20	3.5	ug/i	100		46	35-120			
Dimethyl phthalate	60.9	10	2.0	ug/i	100		61	25-120			
4,6-Dinitro-2-methylphenol	71.9	20	4.0	ug/i	100		72	40-120			
2,4-Dinitrophenol	68.7	20	4.5	ug/l	100		69	35-120			
2,4-Dinitrotoluene	74.4	10	2.0	ug/l	100		74	60-120			
2,6-Dinitrotoluene	67.9	10	2.0	ug/i	100		68	60-120			
Di-n-octyl phthalate	70.1	20	2.0	ug/l	100		70	60-130			
Fluoranthene	76.3	10	2.0	ug/i	100		76	55-120			
Fluorene	63.5	10	2.0	ug/i	100		64	60-120			
Hexachlorobenzene	69.1	10	2.5	ug/l	100		69	55-120			
Hexachlorobutadiene	36.9	10	3.5	ug/l	100		37	40-120	U		L2
Hexachlorocyclopentadiene	34.2	20	5.0	ug/i	100		34	20-120	-		
Hexachloroethane	27.9	10	3.0	ug/l	100		28	35-120	K		L2
Indeno(1,2,3-cd)pyrene	95.4	20	3.0	ug/i	100		95	45-135	•		
Isophorone	52.4	10	2.0	ug/l	100		52	50-120			
2-Methylnaphthalene	58.0	10	2.0	ug/l	100		58	50-120			
2-Methylphenol	59.6	10	2.0	ug/l	100		60	50-120			
4-Methylphenol	63.4	10	2.0	ug/l	100		63	45-120			
Naphthalene	55.7	10	2.5	ug/l	100		56	50-120			
2-Nitroaniline	66.6	20	2.0	ug/l	100		67	60-120			
3-Nitroaniline	82.9	20	2.0	ug/l	100		83	55-120			
4-Nitroaniline	85.9	20	2.5	ug/l	100		86	50-125			
Nitrobenzene	52.0	20	2.5	ug/l	100		52	50-120			
2-Nitrophenol	58.6	10	3.5	ug/l	100		59	45-120			
4-Nitrophenol	68.6	20	5.5	ug/l	100		69	40-120			
N-Nitrosodiphenylamine	64.2	10	2.0	ug/l	100		64	55-120			
N-Nitroso-di-n-propylamine	54.1	10	2.5	ug/l	100		54	45-120			
Pentachlorophenoi	83.2	20	3.5	ug/l	100		83	45-125			
Phenanthrene	70.3	10	2.0	ug/i	100		70	60-120			
Phenol	58.2	10	2.0	ug/l	100		58	45-120			
Pyrene	67.8	10	2.0	ug/l	100		68	50-125			
•				_							

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Nicholas Marz

Project Manager

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ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Santa Ana, CA 92705
Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit (Qualifiers
Batch: 7C16066 Extracted: 03/16/07	<u>.</u> .										
LCS Analyzed: 03/19/2007 (7C16066-BS	1)							÷	•		MNR1
1,2,4-Trichlorobenzene	40.7	10	2.5	ug/i	100		41	45-120	R		L2
2,4,5-Trichlorophenol	61.9	20	3.0	ug/i	100		62	50-120			
2,4,6-Trichlorophenol	63.2	20	3.0	ug/l	100		63	50-120			
N-Nitrosodimethylamine	51.3	20	2.5	ug/l	100		51	40-120			
1,2-Diphenylhydrazine/Azobenzene	64.0	20	2.0	ug/l	100		64	55-120			
Surrogate: 2-Fluorophenol	10.9			ug/l	20.0		54	<i>30-120</i>			
Surrogate: Phenol-d6	11.4			ug/l	20.0		57	<i>35-120</i>			
Surrogate: 2,4,6-Tribromophenol	14.1			ug/l	20.0		70	40-120			
Surrogate: Nitrobenzene-d5	5.54			ug/l	10.0		55	40-120			
Surrogate: 2-Fluorobiphenyl	6.42			ug/l	10.0		64	<i>45-120</i>			
Surrogate: Terphenyl-d14	6.96			ug/l	10.0		<i>70</i>	<i>45-120</i>			
LCS Dup Analyzed: 03/19/2007 (7C1606	6-BSD1)										
Acenaphthene	90.2	10	2.0	ug/l	100		90	55-120	33	₂₀ 44	R-7
Acenaphthylene	98.1	10	2.0	ug/l	100		98	60-120	30	20 PD	R-7
Aniline	82.9	10	2.5	ug/l	100		83	40-120	6	30	
Anthracene	90.8	10	2.0	ug/l	100		91	60-120	23	2077	R-7
Benzidine	149	20	8.5	ug/l	100		149	25-160	1	35	
Benzoic acid	32.5	20	8.5	ug/l	100		32	25-120	2	30	
Benzo(a)anthracene	90.6	10	2.0	ug/l	100		91	60-120	24	20 CCC	- R-7
Benzo(b)fluoranthene	99.2	10	2.0	ug/l	100		99	55-125	18	25	
Benzo(k)fluoranthene	104	10	2.0	ug/l	100		104	50-125	23	20 HHV	R-7
Benzo(g,h,i)perylene	117	10	3.0	ug/l	100		117	45-130	18	25	
Benzo(a)pyrene	108	10	2.0	ug/l	100		108	55-125	20	25	
Benzyl alcohol	85.6	20	2.5	ug/l	100		86	50-120	33	20 B.Q.C	R-7
Bis(2-chloroethoxy)methane	85.8	10	2.0	ug/l	100		86	55-120	32	20 9	R-7
Bis(2-chloroethyl)ether	74.2	10	2.5	ug/l	100	+	74	50-120	30	20 3	R-7
Bis(2-chloroisopropy1)ether	75.8	10	2.5	ug/l	100		76	45-120	31	20 M MN	
Bis(2-ethylhexyl)phthalate	89.2	50	4.0	ug/l	100		89	60-125	25	20 E E E	
4-Bromophenyl phenyl ether	89.2	10	2.5	ug/l	100		89	55-120	29	25 RR	R-7
Butyl benzyl phthalate	88.2	20	4.0	ug/l	100		88	50-125	26	20 AA	. R-7
4-Chloroaniline	88.2	10	2.0	ug/l	100		88	50-120	32	25 T	R-7
2-Chloronaphthalene	85.1	10	2.0	ug/l	100		85	55-120	32	20 🗛 📐	R-7
4-Chloro-3-methylphenol	85.6	20	2.0	ug/l	100		86	55-120	33	25 V	R-7
2-Chlorophenol	78.1	10	2.0	ug/l	100		78	45-120	30	25 C	R-7
4-Chlorophenyl phenyl ether	89.0	10	2.0	ug/l	100		89	60-120	33	20 M M	R-7

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Nicholas Marz

Project Manager

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TAIT Environmental/Boeing 701 N. Parkcenter Drive Project ID: Boeing C-1 Long Beach

EM-2701

Sampled: 03/15/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC1776

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7C16066 Extracted: 03/16/0	7_										
LCS Dup Analyzed: 03/19/2007 (7C160	66-BSD1)										
Chrysene	92.3	10	2.0	ug/l	100		92	60-120	28	20 PVV) _{R-7}
Dibenz(a,h)anthracene	113	20	3.0	ug/l	100		113	50-135	18	25 .	
Dibenzofuran	87.7	10	2.0	ug/I	100		88	60-120	31	ل ل 20	R-7
Di-n-butyl phthalate	90.8	20	2.0	ug/l	100		91	55-125	18	20	
1,3-Dichlorobenzene	41.4	10	3.0	ug/I	100		41	35-120	34	25 P -	R-2
1,4-Dichlorobenzene	45.3	10	2,5	ug/l	100		45	35-120	27	25 E -	- R-2
1,2-Dichlorobenzene	48.2	. 10	3.0	ug/l	100		48	40-120	31	25 F -	
3,3-Dichlorobenzidine	93.8	20	3.0	ug/l	100		94	50-135	31	25 BBB	R-7
2,4-Dichlorophenol	79.1	10	2.0	ug/l	100		79	50-120	33	20 (S)	R-7
Diethyl phthalate	88.0	10	2.0	ug/l	100		88	50-120	24	30	
2,4-Dimethylphenol	67.9	20	3.5	ug/l	100		68	35-120	39	25 O	R-7
Dimethyl phthalate	79.9	10	2.0	ug/l	100		80	25-120	27	30	
4,6-Dinitro-2-methylphenol	89.2	20	4.0	ug/l	100		89	40-120	21	25	
2,4-Dinitrophenol	89.6	20	4.5	ug/I	100		90	35-120	26	25 HH	R-7
2,4-Dinitrotoluene	94.7	10	2.0	ug/l	100		95	60-120	24	20 KK	_ R-7
2,6-Dinitrotoluene	91.8	10	2.0	ug/I	100		92	60-120	30	20 EE	R-7
Di-n-octyl phthalate	94.5	20	2.0	ug/I	100		94	60-130	30	20 FFF	- R-7
Fluoranthene	94.1	10	2.0	ug/I	100		94	55-120	21	20 74	R-7
Fluorene	89.1	10	2.0	ug/I	100		89	60-120	34	20 NV	R-7
Hexachlorobenzene	88.1	10	2.5	ug/I	100		88	55-120	24	20 ろう	R-7
Hexachlorobutadiene	50.8	10	3.5	ug/l	100		51	40-120	32	25 U-	R-2
Hexachlorocyclopentadiene	71.2	20	5.0	ug/l	100		71	20-120	70	30 🗶	R-7
Hexachloroethane	38.6	10	3.0	ug/l	100		39	35-120	32	25 K-	R-2
Indeno(1,2,3-cd)pyrene	113	20	3.0	ug/l	100		113	45-135	17	25)
lsophorone	72.0	10	2.0	ug/l	100		72	50-120	32	20 👭	R-7
2-Methylnaphthalene	79.6	10	2.0	ug/l	100		80	50-120	31	20 ₩	R-7
2-Methylphenol	82.8	10	2.0	ug/l	100		83	50-120	33	20 G	R-7
4-Methylphenol	85.5	10	2.0	ug/l	100		86	45-120	30	20 工	R-7
Naphthalene	74.9	10	2.5	ug/l	100		75	50-120	29	20 5	R-7
2-Nitroaniline	92.3	20	2.0	ug/l	100		92	60-120	32	20 BB	R-7
3-Nitroaniline	112	20	2.0	ug/l	100		112	55-120	30	25 F F	R-7
4-Nitroaniline	113	20	2.5	.ug/l	100		113	50-125	27	20 😝 😌	R-7
Nitrobenzene	73.2	20	2.5	ug/l	100		73	50-120	34	25 L	R-7
2-Nitrophenol	85.2	10	3.5	ug/l	100		85	45-120	37	25 N	R-7
4-Nitrophenol	90.2	20	5.5	ug/l	100		90	40-120	><	30	

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Comparison Co			Reporting			Spike	Source		%REC		RPD	Data
LCS Dup Analyzed: 03/19/2007 (7C16066-BSD1) N-Nitrosodiphenylamine 81.3 10 2.0 ug/l 100 81 55-120 24 20 €Q R-7 N-Nitroso-di-n-propylamine 74.7 10 2.5 ug/l 100 75 45-120 32 20 √ R-7 Pentachlorophenol 106 20 3.5 ug/l 100 106 45-125 24 25 Phenanthrene 87.3 10 2.0 ug/l 100 87 60-120 22 20 ∪ W R-7 Phenol 78.3 10 2.0 ug/l 100 78 45-120 29 25 Å R-7 Pyrene 83.6 10 2.0 ug/l 100 84 50-125 21 25 1,2,4-Trichlorobenzene 58.0 10 2.5 ug/l 100 58 45-120 35 20 R R-2 2,4,5-Trichlorophenol 88.2 20 3.0 ug/l 100 88 50-120 35 30 ₹ R-7 2,4,5-Trichlorophenol 84.6 20 3.0 ug/l 100 88 50-120 35 30 ₹ R-7 2,4,5-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 85 50-120 29 30 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 84 55-120 Surrogate: 2-Fluorophenol 19.0 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit (ualifiers
N-Nitrosodiphenylamine 81.3 10 2.0 100 81 55-120 24 20 Q R-7 N-Nitroso-di-n-propylamine 74.7 10 2.5 100 75 45-120 32 20 R-7 Pentachlorophenol 106 20 3.5 10 2.0 109/1 100 106 45-125 24 25 Phenanthrene 87.3 10 2.0 109/1 100 87 60-120 22 20 ∪ W R-7 Phenol 78.3 10 2.0 109/1 100 78 45-120 29 25 △ R-7 Pyrene 83.6 10 2.0 10 2.0 109/1 100 84 50-125 21 25 1,24-Trichlorobenzene 58.0 10 2.5 109/1 100 88 50-120 35 20 R - R-2 24,5-Trichlorophenol 88.2 20 3.0 10 2.5 100 88 50-120 35 30	Batch: 7C16066 Extracted: 03/16/0	<u>07</u>										
N-Nitroso-di-n-propylamine 74.7 10 2.5 ug/l 100 75 45-120 32 20 \ R-7 Pentachlorophenol 106 20 3.5 ug/l 100 106 45-125 24 25 Phenanthrene 87.3 10 2.0 ug/l 100 87 60-120 22 20 U// R-7 Phenol 78.3 10 2.0 ug/l 100 78 45-120 29 25 \ R-7 Pyrene 83.6 10 2.0 ug/l 100 84 50-125 21 25 1,2,4-Trichlorobenzene 58.0 10 2.5 ug/l 100 58 45-120 35 20 \ R-7 Pyrene 1,2,4-Trichlorophenol 88.2 20 3.0 ug/l 100 88 50-120 35 30 \ L R-7 2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 \ C C C R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 80 35-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 88 45-120	LCS Dup Analyzed: 03/19/2007 (7C160	66-BSD1)										
Pentachlorophenol 106 20 3.5 ug/l 100 106 45-125 24 25 Phenanthrene 87.3 10 2.0 ug/l 100 87 60-120 22 20 U/ R-7 Phenol 78.3 10 2.0 ug/l 100 78 45-120 29 25 Å R-7 Pyrene 83.6 10 2.0 ug/l 100 84 50-125 21 25 1,2,4-Trichlorobenzene 58.0 10 2.5 ug/l 100 58 45-120 35 20 R R-2 2,4,5-Trichlorophenol 88.2 20 3.0 ug/l 100 88 50-120 35 30 £ R-7 2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 0 0 0 R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	N-Nitrosodiphenylamine	81.3	10	2.0	ug/l	100		81	55-120	24	20 QQ	R-7
Phenanthrene 87.3 10 2.0 ug/l 100 87 60-120 22 20 WM R-7 Phenol 78.3 10 2.0 ug/l 100 78 45-120 29 25 Å R-7 Pyrene 83.6 10 2.0 ug/l 100 84 50-125 21 25 1,2,4-Trichlorobenzene 58.0 10 2.5 ug/l 100 58 45-120 35 20 R - R-2 2,4,5-Trichlorophenol 88.2 20 3.0 ug/l 100 85 50-120 35 30 T R-7 2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 80 35-120 27 25 R-7 Surrogate: 2-Honol-d6 15.9 ug/l 20.0 80 35-120 35-120 35-12	N-Nitroso-di-n-propylamine	74.7	10	2.5	ug/l	100		75	45-120	32	20 🕽	R-7
Phenol 78.3 10 2.0 ug/l 100 78 45-120 29 25 Å R-7 Pyrene 83.6 10 2.0 ug/l 100 84 50-125 21 25 1,2,4-Trichlorobenzene 58.0 10 2.5 ug/l 100 58 45-120 35 20 R − R-2 2,4,5-Trichlorophenol 88.2 20 3.0 ug/l 100 88 50-120 35 30 ₹ R-7 2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 ⊕ R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Pentachlorophenoi	106	20	3.5	ug/l	100		106	45-125	24	25	
Pyrene 83.6 10 2.0 ug/l 100 84 50-125 21 25 1,2,4-Trichlorobenzene 58.0 10 2.5 ug/l 100 58 45-120 35 20 R − R-2 2,4,5-Trichlorophenol 88.2 20 3.0 ug/l 100 88 50-120 35 30 ₹ R-7 2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 ⊕ ⊕ R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Phenanthrene	87.3	10	2.0	ug/l	100		87	60-120	22	20 U U	R-7
1,2,4-Trichlorobenzene 58.0 10 2.5 ug/l 100 58 45-120 35 20 R - R-2 2,4,5-Trichlorophenol 88.2 20 3.0 ug/l 100 88 50-120 35 30 ± R-7 2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 0 0 R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: Phenol-d6 15.9 ug/l 20.0 80 35-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 20.0 95 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Phenol	78.3	10	2.0	ug/l	100		78	45-120	29	25 A	R-7
2,4,5-Trichlorophenol 88.2 20 3.0 ug/l 100 88 50-120 35 30 ₹ R-7 2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 ⊕ ⊕ R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: Phenol-d6 15.9 ug/l 20.0 80 35-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 20.0 95 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Pyrene	83.6	10	2.0	ug/l	100		84	50-125	21	25	
2,4,6-Trichlorophenol 84.6 20 3.0 ug/l 100 85 50-120 29 30 N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 ⊕ ⊕ ⊕ R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: Phenol-d6 15.9 ug/l 20.0 80 35-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	1,2,4-Trichlorobenzene	58.0	10	2.5	ug/l	100		58	45-120	35	20 R-	R-2
N-Nitrosodimethylamine 69.6 20 2.5 ug/l 100 70 40-120 30 20 0-0- R-7 1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: Phenol-d6 15.9 ug/l 20.0 80 35-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	2,4,5-Trichlorophenol	88.2	20	3.0	ug/l	100		88	50-120	35	30 Z	R-7
1,2-Diphenylhydrazine/Azobenzene 84.3 20 2.0 ug/l 100 84 55-120 27 25 R-7 Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: Phenol-d6 15.9 ug/l 20.0 80 35-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	2,4,6-Trichlorophenol	84.6	20	3.0	ug/l	100		85	50-120	29	30	
Surrogate: 2-Fluorophenol 14.9 ug/l 20.0 74 30-120 Surrogate: Phenol-d6 15.9 ug/l 20.0 80 35-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	N-Nitrosodimethylamine	69.6	20	2.5	ug/l	100		70	40-120	30	20 g G G	R-7
Surrogate: Phenol-d6 15.9 ug/l 20.0 80 35-120 Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	1,2-Diphenylhydrazine/Azobenzene	84.3	20	2.0	ug/l	100		84	55-120	27	25	R-7
Surrogate: 2,4,6-Tribromophenol 19.0 ug/l 20.0 95 40-120 Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Surrogate: 2-Fluorophenol	14.9			ug/l	20.0		74	<i>30-120</i>			
Surrogate: Nitrobenzene-d5 7.64 ug/l 10.0 76 40-120 Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Surrogate: Phenol-d6	15.9			ug/l	20.0		80	35-120			
Surrogate: 2-Fluorobiphenyl 8.82 ug/l 10.0 88 45-120	Surrogate: 2,4,6-Tribromophenol	19.0			ug/l	20.0		95	40-120	•		
	Surrogate: Nitrobenzene-d5	7.64			ug/l	10.0		76	40-120			
Surrogate: Terphenyl-d14 8.86 ug/l 10.0 89 45-120	Surrogate: 2-Fluorobiphenyl	8.82			ug/l	10.0		88	45-120			
	Surrogate: Terphenyl-d14	8.86			ug/l	10.0		89	45-120			

TestAmerica - Irvine, CA Nicholas Marz Project Manager

- 10 0 0 1 · 1 · 1 · 1 SDG #: per cours

Initial Calibration Calculation Verification VALIDATION FINDINGS WORNSHEET

\ to / Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

 $\label{eq:RF} $$RF = (A_J/(C_a)/(A_a)(C_J)$$ average RRF = sum of the RRFs/number of standards $$RSD = 100 * (S/X)$$$

 $A_{\rm b}$ = Area of associated internal standard $C_{\rm b}$ = Concentration of internal standard X = Mean of the RRFs A_x = Area of compound, C_x = Concentration of compound, S = Standard deviation of the RRFs,

				Reported	Recalculated	Reported	Recelculated	Reported	Becelvoleted
*	Standard ID	Calibration Date	Compound (Reference Internal Standard)	RRF (S std)	RRF (%) std)	Average RRF (Initial)	Average RRF (Initial)	%RSD	%RSD
-	141-8	70/5/2	Phenol (1st Internal standard)	2.111	7.1	2.12	1 1 1 1	4.0	4.01
			Naphthalene (2nd internal standard)	250.1	1-836	1.030	1.030	0.90	CAS
			Fluorene (3rd internal standard)	1.32	1-32)	1.268	1	जिन्ह	44.6
			Partachiorophenol (4th Internal standard)	Spo-1 -091-0	1.093	100g So-1		7-7	7,5
			Bis(2-ethylhexyl)phthalate (5th Internal standard)	1.596	1.396	1.308	-	73.67	2.67
			Benzo(a)pyrene (6th internal standard)	. 20.5	1.205	1.192	1.192	4.89	2
2			Phenol (1st internal standard)						0.50
			Naphthalene (2nd Internal standard)						
			Fluorene (3rd internal standard)						
	•		Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th Internal standard)						
			Benzo(a)pyrene (6th internal standard)						
в			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10,0% of the recalculated results.

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LDC #: 16 59182 SDG #: 45 50 Ved

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 1 of
Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF RFF = $(A_{\nu})(C_{\nu})/(A_{\nu})(C_{\nu})$

Where: ave. RRF = initial calibration average RRF RRF = continuing calibration RRF

 $A_x = Area of compound,$ $C_x = Concentration of compound,$

 A_k = Area of associated internal standard C_k = Concentration of internal standard

L								
					Reported	Recalculated	Reported	Recalculated
*	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	RRF (CC)	RRF (CC)	Q%	0 %
-	ces	3/20/07	Phenol (1st internal standard)	2.12	210-2	210.2	2.5	7.57
			Naphthalene (2nd internal standard)	1.030	260.1	760.1	ف ٥	09
			Fluorene (3rd internal standard)	1.268	1.323	1.323	4.3	2 2
			Pontachloropherrol (4th internal standard)	1.030	1.117	1.17) ()	
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.308	1.392	1.292	5.4	5:5
			Benzo(a)pyrene (6th internal standard)	1. 92	261.1	1.192	J. 0	5 (
2			Phenol (1st internal standard)					$C \cdot c$
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
ღ			Phenoi (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)	-				
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the ecalculated results

CONCLC.2S

LDC #: 16591B2 SDG #: pu cover

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page:_	1	_of_	
Reviewer:_		人	<u>. </u>
2nd reviewer:_		N	7

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found

SS = Surrogate Spiked

Sample ID: #

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	S	3.95	1 79	79	0
2-Fluorobiphenyl		3.37	67	67	1
Terphenyl-d14		3.56	71	11	
Phenol-d5	10	7.29	13	13	
2-Fluorophenol	•	6.49	65	65	
2,4,6-Tribromophenol		8.30	४३	83	1
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					·
2-Fluorobiphenyl					•
Terphenyl-d14					
Phenol-d5	·		·		
2-Fluorophenoi					
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14			-		
Phenol-d5		·			
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4				•	
1,2-Dichlorobenzene-d4					

LDC # 1659182 SDG #: per cover

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: Page:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA

SSC = Spike concentration SA = Spike added Where:

RPD = I LCS - LCSD I * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: __

1016066- 105 D

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #:_	16	59	182
SDG #:			

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Example:

Page:	/_of_/
Reviewer:	þ
2nd reviewer:	

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

<u>Y</u>	N	N/A
\overline{Y}	N	N/A
7	-	

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $(A_{\bullet})(I_{\bullet})(V_{\bullet})(DF)(2.0)$ $(A_{\bullet})(RRF)(V_{\bullet})(V_{\bullet})(%S)$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

i. = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V. = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Sample I.D. 7 Naponthaline	-	
Conc. = (365945)(40)(2- 1654509)(1-030)(1055)+)(1060 ₎₍)

16 ug/L

2.0	= Factor of 2 to accor	unt for GPC cleanup				
#	Sample ID	Compound		Reported Concentration ()	Calculated Concentration ()	Qualification

·						·
			·			
						· .
						<u> </u>
					<u> </u>	

Boeing Realty Corp., Bldg C-1 Long Beach Data Validation Reports LDC# 16591

Hexavalent Chromium



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date:

March 8, 2007

LDC Report Date:

April 26, 2007

Matrix:

Water

Parameters:

Hexavalent chromium

Validation Level:

Tier 1, 2, & 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC0980

Sample Identification

MW3009_WG030807_0001 MW3012_WG030807_0001* MW3012_WG030807_0002**

^{*}Indicates sample underwent Tier 2 review **Indicates sample underwent Tier 3 review All other samples underwent Tier 1 review

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7196A for Hexavalent chromium.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent a Tier 3 review. A Tier 2 or Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

Initial calibration data were not reviewed for Tier I.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

Calibration verification data were not reviewed for Tier I.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

All sample result verifications were acceptable for samples on which a Tier 3 review was performed. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

	Concentra		
Analyte	MW3012_WG030807_0001*	MW3012_WG030807_0002**	RPD
Hexavalent chromium	1.3	0.98	28

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach Hexavalent chromium - Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach Hexavalent chromium - Laboratory Blank Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG



ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-1 Long Beach

EM-2701-05

Report Number: 1QC0980

Sampled: 03/08/07

Received: 03/08/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: 10C0980-01 (TB-TAIT0308						ed: 03/08/0		, ,	
Reporting Units: ug/l	, , , , , , , , , , , , , , , , , , ,				Sample	u. 03/00/0	<i>y</i>		
Chromium VI	EPA 7196A	7C08171	0.65	25	ND-		03/08/07	03/08/07	
Sample ID: IQC0980-02 (MW3009_WG	6030807_0001 - W	ater)			Sample	ed: 03/08/0	07		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	ND	1	03/08/07	03/08/07	
Sample ID: IQC0980-03-(MW3016_WG	:030807_0001 - W	ater)			Sample	:d: 03/08/0	97		
Reporting Units: ug/l	55. 5104.	5000151	0.45	0.5					
Chromium VI	EPA 7196A	7C08171	0.65	25	11		03/08/07	03/08/07	J
Sample ID: IQC0980-04 (MW3015_WG Reporting Units: ug/l	6030807_0001 - W	ater)			Sample	ed: 03/08/0	07		
Chromium VI	EPA 7196A	7C 08171	0.65	25	49	1	03/08/07	03/08/07	
Sample ID: IQC0980-05 (MW3014_WG	030807 0001 - W	ater)			Sample	d: 03/08/0	07		
Reporting Units: ug/l	_	,			p		, ,		
Chromium VI	EPA 7196A	7C08171	0.65	25	13	1	03/08/07	03/08/07	J
Sample ID: 1QC0980-06 (MW3013_WG	030807_0001 - W	ater)			Sample	d: 03/08/0)7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	3.4		03/08/07	03/08/07	J
Sample ID: IQC0980-07 (MW3012_WG	030807_0001 - W	ater)			Sample	d: 03/08/0	07		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	1.3	ł	03/08/07	03/08/07	J
Sample ID: IQC0980-08 (MW3012_WG	030807_0002 - W	ater)			Sample	d: 03/08/0	7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	0.98	1	03/08/07	03/08/07	J
Sample ID: IQC0980-09 (MW3011 WG	030807_0001 - W	ater)			Sample	d:_03/08/0	07	-	
Reporting Units: ug/l							····		
Chromium VI	EPA 7196A	7C08171	0.65	25	4.7	1	03/08/07	03/08/07	J
Sample ID: IQC0980-10 (MW3010_WG	030807_0001 - Wa	ater)			Sample	d: 03/08/0	7		
Reporting Units: ug/l	EDA 710/ 1	7000171	2.2	120	1.40	5	02/00/07	02/00/07	
Ch <u>romium VI</u>	EPA 7196A	7C08171	3.2	120	140	5	03/08/07	03/08/07	

TestAmerica - Irvine, CA Nicholas Marz

Project Manager

WH2507

IQC0980 <Page 2 of 7>

LDC #		VALIE	OATIO		LETENESS WORKSHI ier 1/2/3	TENESS WORKSHEET Date: 4 Page: (o					
	atory: Test America			•		2	Reviewer:				
METH	IOD: Hexavalent Chromiu	m (EPA	SW846	6 Method 7	'196A)						
	amples listed below were tion findings worksheets.	reviewe	d for ea	ch of the fo	ollowing validation areas. Val	idation findings	are noted in attached				
	Validation A	rea			C	omments					
1.	Technical holding times			A	Sampling dates:						
IIa.	Initial calibration			A	Not reviewed for Tier I validation.						
IIb.	Calibration verification			A	Not reviewed for Tier I validation.						
111.	Blanks			A							
IVa.	Matrix Spike/(Matrix Spike) D	uplicates		A	M5/HSD 120980.	0					
IVb.	Laboratory control samples			A	Vis						
٧.	Sample result verification			A	Not reviewed for Tier I or Tier II va	lidation.					
VI.	Overall assessment of data			A							
VII.	Field duplicates			5 ty/	(213)						
VIII	Field blanks			<u> </u>							
Note:	A = Acceptable N = Not provided/applicable SW = See worksheet		R = Rin FB = Fi	eld blank	s detected D = Duplicate TB = Trip blank EB = Equipmer						
Validate	ed Samples: * Indicates sample	underwe	nt Tier y		** Indicates sample underwent Tier	III validation					
1	MW3009_WG030807_0001\	11			21	31					
2	MW3012_WG030807_0001*	12			22	32					
3	MW3012_WG030807_0002**	13			23	33					
4	MB	14			24	34					
5		15			25	35					
6		16			26	36					
7	MINIMA AND AND AND AND AND AND AND AND AND AN	17			27	37					
8		18			28	38					
9		19			29	39					
10		20			30	40					

LDC #: 1681 A6 SDG #: See www

VALIDATION FINDINGS CHECKLIST

Page: of Reviewer: yy

Method:Inorganics (EPA Method 71964)

Wellder A.	T.,	Τ	Ι	
Validation Area	Yes	No	NA NA	Findings/Comments
All technical holding times were met.				
Cooler temperature criteria was met.	1/	l		, , , , , , , , , , , , , , , , , , ,
The direction of the property of the state o				
Were all instruments calibrated daily, each set-up time?	/			
Were the proper number of standards used?	1			
Were all initial calibration correlation coefficients > 0.995?	1			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	/			·
Were titrant checks performed as required? (Level IV only)			/	
Were balance checks performed as required? (Level IV only)				
Michael Carlos				After 10.24 William Control
Was a method blank associated with every sample in this SDG?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
IV Matrix spike Marrix spike Objicates and Ouplicates				The second secon
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.				
Were the MS/MSD or duplicate relative percent differences (RPD) \leq 20% for waters and \leq 35% for soil samples? A control limit of \leq CRDL(\leq 2X CRDL for soil) was used for samples that were \leq 5X the CRDL, including when only one of the duplicate sample values were \leq 5X the CRDL.	/			
V. i Eaboratory control is amples service and the service serv				
Was an LCS anaytzed for this SDG?	/			
Was an LCS analyzed per extraction batch?	4			
Were the LCS percent recoverles (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	\mathcal{A}			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			1	
Were the performance evaluation (PF) samples within the acceptance limits?			1	

LDC#: 16571166 SDG#: 12 11

VALIDATION FINDINGS CHECKLIST

Page:_ Reviewer:	Lof
2nd Reviewer:	

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification.				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	1			
Were detection limits < RL?				
VIII ONE CALL SESSION DE COLOR DE LA CALLES DEL CALLES DE LA CALLES DE				
Overall assessment of data was found to be acceptable.				
Share and the state of the stat				
Field duplicate pairs were identified In this SDG.	\			
Target analytes were detected in the field duplicates.				
Karpeld planks (c. 1988) and the second plane of the second plane				
Field blanks were identified in this SDG.				
Target analytes were detected in the field blanks.				

LDC#:	16591A6
SDG#	IOC0080

VALIDATION FINDINGS WORKSHEET Field Duplicates

Page: ___of ___ Reviewer: ____ 2nd Reviewer: ____

320".<u>190000</u>

Inorganics, Method 7196A

YN NA YN NA Were field duplicate pairs identified in this SDG?

Were target analytes detected in the field duplicate pairs?

	Concentra	ition (ug/L)		
Analyte	2	3	RPD	
Cr (VI)	1.3	0.98	28	

V:\FIELD DUPLICATES\FD_inorganic\16591A6.wpd

SDG #: [64] AS

VALIDATION FINDINGS WORKSHEET Initial and Continuing Calibration Calculation Verification

g.	ž	7
Page:	Reviewer:	Reviewer:
		2nd

METHOD: Inorganics, Method 7196A

methods inorganics, method \mathcal{CM} . The correlation coefficient (t) for the calibration of \mathcal{CM} w

was recalculated. Calibration date:

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = <u>Found</u> × 100 True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution True = concentration of each analyte in the ICV or CCV source

					Recalculated	Reported	
Type of Analysis	Analyte		Core, (wy /)	/// (units)	r or %R	ror%R	Acceptable (Y/N)
Initial calibration		Blank	0				
Calibration verification		Standard 1	ا دره	0.007			
		Standard 2	osons	6,023			
		Standard 3	6、1	6800			•
	+3/5	Standard 4	0,5	414	1.68830-1	× 2000 00/2/2	
	5	Standard 5				01111	_
		Standard 6					
		Standard 7					
Calibration verification $\mathcal{L}^{\mathcal{C}\mathcal{V}}$	+9 [~]	(10	(0),0		(a)	18R	Y
Calibration verification $c\omega$	eist	6.9	01800		\{ 9 \}	- W	. J
Calibration verification							

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

CALCLC.6

LDC #: SDG #:

VALIDATION FINDINGS WORKSHEET **Level IV Recalculation Worksheet**

2nd Reviewer:

METHOD: Inorganics, Method ___

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

Where %R = <u>Found</u> x 100 True

Found =

concentration of each analyte <u>measured</u> in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result). concentration of each analyte in the source. True =

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

 $RPD = \underbrace{1S \cdot D!}_{(S+D)/2} \times 100 \text{ Where,}$

|| || || 0

Original sample concentration Duplicate sample concentration

					Recalculated	Reported	
Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	%R / RPD	%R / RPD	Acceptable (Y/N)
	Laboratory control sample						
7		+33	•)	0	()	(c)) —
Threagon 10/	Matrix spike sample		(99R-5R)	3.0	73	Š	
	Duplicate sample	0	+ ° ×	7°5.	0	0	+

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTOLO.8

LDC #: SDG #	1659 LAY	VALIDATION FINDINGS We Sample Calculation Veri		Page Reviewer 2nd reviewer		
METHO	D: Inorganics, Metho	d71964				
Please N N I N N I	<u>N/A</u> Have results <u>N/A</u> Are results w	ow for all questions answered "N". Not ap been reported and calculated correctly? rithin the calibrated range of the instrumention limits below the CRQL?		re Identified as "I	\\/A".	
	und (analyte) results f lated and verified usir	for	repo	rted with a positiv	e detect were	
Concent	ration = $ \frac{4}{2} \frac{\text{Ms} - 0.9}{0.83} $	Recalculation: Qt = -	0,827	2	0, 0.086 v	~8/L
#	Sample ID	Analyte	Reported Concentration	Calculated Concentration	Acceptable (Y/N)	[

#	Sample ID	Analyte	Reported Concentration ('Y/	Calculated Concentration	Acceptable (Y/N)
	3	cv6+	0.98	0.86	У
				·	
	:				
	i				

Note:	1204	્ર	Lewnol	mount?	0~	print	out	fu	Show)	
	- V- Y-			7							

Boeing Realty Corp., Bldg C-1 Long Beach Data Validation Reports LDC# 16591

TPH as Extractables



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date:

March 15, 2007

LDC Report Date:

April 30, 2007

Matrix:

Water

Parameters:

Total Petroleum Hydrocarbons as Extractables

Validation Level:

Tier 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report if data has been summarized.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Attention: Mehmet Pehlivan

Santa Ana, CA 92705

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07

HYDROCARBON DISTRIBUTION (EPA 3510C/8015 Mod.)

Analyte	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	% of Total	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3	017_WG031	507_0001	- Water)						
Reporting Units: mg/l									
EFH (C6 - C44)	7C22062	0.094	0.47	4.9	1	100	3/22/2007	3/22/2007	
EFH (C6 - C7)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C8 - C9)	7C22062	0.094	0.094	0.15	1	3	3/22/2007	3/22/2007	
EFH (C10 - C11)	7C22062	0.094	0.094	0.79	1	16	3/22/2007	3/22/2007	
EFH (C12 - C13)	7C22062	0.094	0.094	1.1	1	22	3/22/2007	3/22/2007	
EFH (C14 - C15)	7C22062	0.094	0.094	1.4	. 1	29	3/22/2007	3/22/2007	
EFH (C16 - C17)	7C22062	0.094	0.094	0.93	1	19	3/22/2007	3/22/2007	
EFH (C18 - C19)	7C22062	0.094	0.094	0.29	1	6	3/22/2007	3/22/2007	
EFH (C20 - C23)	7C22062	0.042	0.042	0.084	1	2	3/22/2007	3/22/2007	
EFH (C24 - C27)	7C22062	0.042	0.042	0.045	1	1	3/22/2007	3/22/2007	
EFH (C28 - C31)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C32 - C35)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C36 - C39)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C40 - C44)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
Surrogate: n-Octacosane (40-125%)				97 %					

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,

except in full, without written permission from TestAmerica.

TestAmerica - Irvine, CA Nicholas Marz Project Manager

IQC1776 <Page 18 of 37>

	:16591B8 ::IQC1776 atory:_Test America	VA I	LIDATIO	N COMF EPA Re					HEET		Date: 4/25 Page: _/_of _/ Reviewer:
METH	OD: GC TPH as Extracta	ables	(EPA SW	846 Metho	od 801	5)					
	imples listed below were ion findings worksheets.	revie	wed for ea	ch of the f	ollowir	ng va	lidatio	n areas.	Validatio	n findi	ngs are noted in attached
	Validation A	\rea_							Comm	ents	
I.	Technical holding times			Δ	Samp	ling da	tes:	3/15	107		
Ila.	Initial calibration			A				,			
IIb.	Calibration verification			Δ							
111.	Blanks			Δ							
IVa.	Surrogate recovery			A							
IVb.	Matrix spike/Matrix spike dup	licates	i	N	ch	يستل	5	pecifi	<u>ليو</u>		
IVc.	Laboratory control samples			A	Le	3 K)	1 1			
V.	Target compound identification	on		Δ							
VI.	Compound Quantitation and	CRQL	s	Δ							
VII.	System Performance			Δ							
VIII.	Overall assessment of data			A							
IX.	Field duplicates			N,							
X.	Field blanks			N							
Note: Validate	A = Acceptable N = Not provided/applicable SW = See worksheet d Samples:		R = Rin	o compound sate eld blank	s detec	ted	Т) = Duplica B = Trip b B = Equip	iank	k	
1 1	MW3017-WG031507_0001	11	7022	062-B	uk)	21				31	
2		12				22				32	
3		13				23				33	
4		14				24				34	
5		15				25				35	
6		16				26				36	
7		17				27				37	
8		18				28				38	
9		19				29				39	
10		20				30				40	
Notes:											

LDC #:	165	9/138
SDG #:_	m	cover

VALIDATION FINDINGS CHECKLIST

	Page:_	_/of_	z
	Reviewer:	19	
2nd	Reviewer:	d	

Method: ____ GC ___ HPLC

Method:	GC	HPLC					
	Validation Area		Ye	s N	0 N	ΙΑ	Findings/Comments
Reference linearing anness							
All technical holding times were	e met.			1_		\dashv	
Cooler temperature criteria was	s met.			1	120174000	market.	
Daniel allociones de				Ŧ			
Did the laboratory perform a 5 p	point calibration prior	to sample analysis?		4-		4	·
Was a linear fit used for evalua deviations (%RSD) < 20%?	ation? If yes, were all p	percent relative stand	dard	1	_	_	
Was a curve fit used for evalua used?	ition? If Yes, what was	s the acceptance crit	eria	<u> </u>	4		·
Did the initial calibration meet the	he curve fit acceptanc	ce criteria?		1_		4	
Were the RT windows properly	established?						
ty continuing calleation					1	Ŧ	
What type of continuing calibrat %R	tion calculation was p	erformed?%D	or _	1		\perp	
Was a continuing calibration an	nalyzed daily?					4	
Were all percent differences (%	D) ≤ 15%.0 or percer	nt recoveries 85-115	%?]		\dashv	
Were all the retention times with	hin the acceptance wi	ndows?		1_			
V Blanks				1	T		
Was a method blank associated	d with every sample in	this SDG?		┼	+	4	
Was a method blank analyzed for	for each matrix and co	oncentration?		╂	+	+	
Was there contamination in the validation completeness worksh		s, please see the Bla	anks		1		
V/Seegale sokes							
Were all surrogate %R within the	e QC limits?			1		_	
If the percent recovery (%R) of careanalysis performed to confirm		es was outside QC li	mits, was			1	
If any %R was less than 10 perc	ent, was a reanalysis	performed to confin	m %R?			1	
VII.:Malfix solke/Matrix solke du	olicates						
Were a matrix spike (MS) and m matrix in this SDG? If no, indicat MS/MSD. Soil / Water.						7	-
Was a MS/MSD analyzed every	20 samples of each r	natrix?			-	才	
Were the MS/MSD percent recov (RPD) within the QC limits?	venes (%R) and the r	elative percent differ	ences		0	1	
VIII Laboratory control samples							
Was an LCS analyzed for this SI	DG?			1			
Was an LCS analyzed per extrac	ction batch?			1_			<u> </u>

LDC#: 1659/138 SDG#: u cover

VALIDATION FINDINGS CHECKLIST

Page: Zof L Reviewer: Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	V			
IX Regional/Ocality vessulance and obality control as a second second second				
Were performance evaluation (PE) samples performed?			_	
Were the performance evaluation (PE) samples within the acceptance limits?			-	
X: araiget compound adentification is				
Were the retention times of reported detects within the RT windows?		*********		
ΔΕ compositing annitation (SRQLS)				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?			·	
XII; Systemmeriolimense				
System performance was found to be acceptable.	·			
XUIL overall assessment of calabatic section is a section of the s				
Overall assessment of data was found to be acceptable.				
XIV Fieldylphicales (1995)				
Were field duplicate pairs identified in this SDG?				
Were target compounds idetected in the field duplicates?				
sw. Fieldi Hanks				
Were field blanks identified in this SDG?				
Were target compounds detected in the field blanks?				

1659188 SDG #: DOC LDC #:

Initial Calibration Calculation Verification **VALIDATION FINDINGS WORKSHEET**

Page: Reviewer: 2nd Reviewer:

> HPLC METHOD: GC_

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/Caverage CF = sum of the CF/number of standards %RSD = $100 \cdot (S/X)$

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

CF (1,50 std) (initial) (initial) 213・4 2187-17					Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
7) PE H 287.4 243.4 243.17 2787.17 2787.17 2787.17		Standard ID	Calibration Date	Compound	7.7.7. 7.7.2fd)	CF CF Std)	Average CF (initial)	Average CF (initial)	%RSD	«RSD
	L	147	79/01	H 44	2873.4	4. 54xz	7187.17	2787.17	W.14	11-14
			-			•				
	<u> </u>									
					-					
									·	
	ļ									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

1659188 LDC #: SDG#:

Continuing Calibration Results Verification VALIDATION FINDINGS WORKSHEET

2nd Reviewer: Page: Reviewer:

> HPLC_ METHOD: GC_

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

					Congra	Deteliniered	Reported	Recalculated
#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	CF/Conc. CCV	CF/Conc. CCV	%R	%R
-	OeV	70/22/5	EFH	150	746.3494		99	99
		فذكا						•
2								
3	-							
		`						
4	·							

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results

CONCL C 18

see come LDC #: 1659188

SDG#:

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page: Reviewer: 2nd reviewer:

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation: GE HPLC METHOD:

Where: SF = Surrogate Found SS = Surrogate Spiked % Recovery: SF/SS * 100

Sample ID:

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
g. odg wsame	not specified	Qal	97.4363	76	41	0
	1 ,					
Sample IU:						
Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

\parallel						
Column/Detector	Sur Sp	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC# 1659185 SDG#: ** con

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification VALIDATION FINDINGS WORKSHEET

Page:

Reviewer: 722 2nd Reviewer: 4

OCC HPLC METHOD:

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where

SC = Sample concentration

RPD =(((ssclcs - ssclcsD) * 2) / (ssclcs + ssclcsD))*100

SSC = Spiked sample concentration SA = Spike added LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples:__

7022007-13

	Spil	e)	Sample	Spike S	ımple	SOT		CSD	ا د	TCS/FCSD	asc
Compound	Added (MA)	- C	Conc.	Concentration (ration (ア)	Percent Recovery	ecovery	Percent Recovery	covery	RPD	
	LCS	CSD	51	SOT	CSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)				·							
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)											
Dinoseb (8151)						·					
Naphthalene (8310)											
Anthracene (8310)								-			
HMX (8330)				·							
2,4,6-Trinitrotoluene (8330)											
年中	0.	1.0	O	1260	908.0	93	93	8	(%	된 기	14

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

BOE-C6-0054476

LDC #: 16 591 B8 SDG#:

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page: / of 2nd Reviewer: _ Reviewer:

> HPLC METHOD:

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10% of the reported results?

(A)(Fv)(Df) Concentration=

(RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured Fv= Final Volume of extract Df= Dilution Factor

RF= Average response factor of the compound In the initial calibration

Vs= Initial volume of the sample Ws= Initial weight of the sample %S= Percent Solid

Sample ID.

Example:

Cb - any 七十十 Compound Name__

145 b2237,58 L1-L812

Concentration =

(1000)

#	Sample ID	Compound	Reported Concentrations (Recalculated Results Concentrations (Qualifications

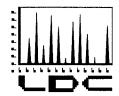
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Comments:

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В	IQC2470.	05/03/07	05/24/07	0	0	.0	0	0	.0	0.	0	.0	0	0-	0	.0	0.	. 1	.0	0	0	Tie	er I												Г
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Shaded cells indicate Tier III validation (all other cells are Tier II validation). Sample counts do not include MS, MSD, or DUP's.

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LABORATORY DATA CONSULTANTS, INC.

7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Tait Environmental Management, Inc.

May 11, 2007

701 N. Park Center Drive Santa Ana, CA 92705 ATTN: Ms. Clara Boeru

SUBJECT: Boeing Realty Corp. Bldg C-6 Torrance, Data Validation

Dear Ms. Boeru,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received on May 3, 2007. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 16739:

<u>SDG #</u>	<u>Fraction</u>
IQC1612, IQC2470, IQC2895	Volatiles, Maganese, Wet Chemistry, Dissolved Gases

The data validation was performed under Tier 1, Tier 2 and Tier 3 guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 1999
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998

Please feel free to contact us if you have any questions.

Sincerely,

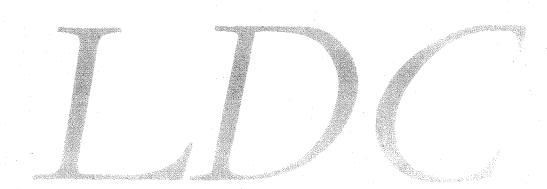
Stella S. Cuenco

Project Manager/Senior Chemist

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ГРС	*SDG*	DATE REC'D	(3) DATE DUE	, v (826	VOA (8260B)	Mn (6010B)	n 0B)	Diss. Gases (175)		Alk. (310.1)	 	NH ₃ (350.3)		CI,SO ₄ O-PO ₄ (300.0)	NO ₃ -N NO ₂ -N (300.0)		S= (376.2)		TOC (415.1)														
Matrix:	Water/Soil			≯	S	≯	S	3	S	×	S	\ S V	3	S	W	S	W	S	W	S	S /	≥	S	≥	S	≯	ဟ	*	S	N N	≥	S	F
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മ	IQC2470	05/03/07 05/24/07	05/24/07	0	0	0	0	0	0		\vdash	0 (0	0	0	0	1	0	0	0	Tier I										_	_	=
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Boeing Realty Corp., Bldg C-6 Torrance Data Validation Reports LDC# 16739

Volatiles



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 14, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Volatiles

Validation Level:

Tier 1

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC1612

Sample Identification

MWB013_WG031407_0001

MWG004_WG031407_0001

TMW_14_WG031407_0001

TMW_11_WG031407_0001

WCC_5S_WG031407_0001

MWC021_WG031407_0001

MWB013_WG031407_0001MS

MWB013_WG031407_0001MSD

Introduction

This data review covers 8 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance data were not reviewed for Tier 1.

III. Initial Calibration

Initial calibration data were not reviewed for Tier 1.

IV. Continuing Calibration

Continuing calibration data were not reviewed for Tier 1.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

Internal standards data were not reviewed for Tier 1.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Volatiles - Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

Test America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

EM2727-01

Sampled: 03/14/07

Santa Ana, CA 92705

Report Number: IQC1612

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1612-05 (MWB013_W	VG031407_0001 - W	ater)							
Reporting Units: ug/l									
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/16/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	0.37	1	03/16/07	03/16/07	J
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/16/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/16/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/16/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/16/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/16/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	0.54	1	03/16/07	03/16/07	J
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/16/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/16/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	•
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/16/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/16/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/16/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/16/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/16/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
TastAmarica - Irvina CA									

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

125/007

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IQC1612 <Page 10 of 51>

Test America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive

EM2727-01

Santa Ana, CA 92705

Report Number: 1QC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1612-05 (MWB013_WG0	031407_0001 - Wa	ater) - cont.							
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/16/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/16/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/16/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND]	03/16/07	03/16/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/16/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/16/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
Trichloroethene	EPA 8260B	7C16022	0.26	0.1	5.3	1	03/16/07	03/16/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/16/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/16/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/16/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/16/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/16/07	
Surrogate: 4-Bromofluorobenzene (80-120)	%)				108 %				
Surrogate: Dibromofluoromethane (80-120	%)				109 %				
Surrogate: Toluene-d8 (80-120%)					103 %				

TestAmerica - Irvine, CANicholas Marz
Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Project ID: Boeing C-6 Torrance

EM2727-01

Santa Ana, CA 92705 Report Number: 1QC1612 Attention: Mehmet Pehlivan Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
•			2		••••			•	-
Sample ID: IQC1612-06 (MWG004_WG0	131407_0001 - Wa	ter)							
Reporting Units: ug/l	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/16/07	
Acetone Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Bromobenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/16/07	
Bromochloromethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Bromodichloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1 -	03/16/07	03/16/07	
Bromomethane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/16/07	
2-Butanone (MEK)	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
n-Butylbenzene sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/16/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.48	0.50	ND	1	03/16/07	03/16/07	
Chlorobenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/16/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	ND	1	03/16/07	03/16/07	
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/16/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.27	2.0	ND	1	03/16/07	03/16/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/16/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	0.34	1	03/16/07	03/16/07	J
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/16/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/16/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/16/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/16/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/16/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/16/07	•
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/16/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/16/07	
TestAmerica - Irvine, CA									

Nicholas Marz

Project Manager

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Test/America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

EM2727-01

Sampled: 03/14/07

701 N. Parkcenter Drive Santa Ana, CA 92705

Report Number: IQC1612

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1612-06 (MWG004_WG0	031407_0001 - W	ater) - cont.							
Reporting Units: ug/l									
p-lsopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/16/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/16/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/16/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND]	03/16/07	03/16/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/16/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/16/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/16/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/16/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/16/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/16/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	17	1	03/16/07	03/16/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/16/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/16/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/16/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/16/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/16/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/16/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/16/07	
Surrogate: 4-Bromofluorobenzene (80-120)	%)				107 %				
Surrogate: Dibromofluoromethane (80-120	%)				114 %				
Surrogate: Toluene-d8 (80-120%)					104 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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Test America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive Santa Ana, CA 92705 EM2727-01

Report Number: IQC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

	Madhad	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution	Date Extracted	Date Analyzed	Data Qualifiers
Analyte	Method	Daten	17111111	Limit	Result	T'ACIOI	Extracted	Analyzeu	Quantities
Sample ID: IQC1612-07 (TMW_14_WG Reporting Units: ug/l	031407_0001 - Wa	ater)							
Acetone	EPA 8260B	7C16022	4.5	10	ND	I	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	I	03/16/07	03/17/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	I	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	I	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	I	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-ButyIbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	1.4	1	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	2.7	I	03/16/07	03/17/07	
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

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Test/America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727-01

Report Number: 1QC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample 1D: IQC1612-07 (TMW_14_WG0	31407_0001 - Wa	ater) - cont.							
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	I	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	0.89	1	03/16/07	03/17/07	J
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND]	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	6.7	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	I	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-120)	%)				108 %				
Surrogate: Dibromofluoromethane (80-120	%)				118%				
Surrogate: Toluene-d8 (80-120%)					104 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

701 N. Parkcenter Drive

Santa Ana, CA 92705

Project ID: Boeing C-6 Torrance

EM2727-01

Report Number: 1QC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1612-08 (TMW_1	1_WG031407_0001 - Wa	iter)							
Reporting Units: ug/l						_	00/1/6/05	02/15/05	
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	0.28	1	03/16/07	03/17/07	J
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	2.3	1	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	170	1	03/16/07	03/17/07	
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	I	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	I	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	

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Nicholas Marz

Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive Santa Ana, CA 92705 Attention: Mehmet Pehlivan EM2727-01

Report Number: IQC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1612-08 (TMW_11_WG0	31407 0001 - Wa	iter) - cont.							
Reporting Units: ug/l	_	·							
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	I	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1, 1, 1, 2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	3.7	1	03/16/07	03/17/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1, 1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	8.0	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	ì	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-1209	%)				109 %				
Surrogate: Dibromofluoromethane (80-120	%)				111 %				
Surrogate: Toluene-d8 (80-120%)					102 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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Test A

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727-01

Report Number: IQC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

A colore	M-4b-J	Dodah	MDL	Reporting	Sample	Dilution	Date Extracted	Date	Data Qualifiers
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Quanners
Sample ID: IQC1612-09 (WCC_5S_WG0 Reporting Units: ug/l	031407_0001 - Wa	ter)							
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-ButyIbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-ButyIbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND :	1	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	0.40	1	03/16/07	03/17/07	J
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	0.68	1	03/16/07	03/17/07	J
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	6.5	1	03/16/07	03/17/07	
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	0.54	1	03/16/07	03/17/07	J
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
TestAmerica - Irvine, CA									

Nicholas Marz

Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

701 N. Parkcenter Drive Santa Ana, CA 92705

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

EM2727-01

Report Number: 1QC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
•			2	2		- 40101	2,	, 1, 200	C
Sample ID: IQC1612-09 (WCC_5S_W	G031407_0001 - Wa	iter) - cont.							
Reporting Units: ug/l	TD	=01/000	0.00			,	00.41.6.407	02/2/2/07	
p-Isopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	I	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	I	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7CI6022	0.32	1.0	ND	1	03/16/07	03/17/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
1,1,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	2.9	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	1.2	1	03/16/07	03/17/07	J
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	j	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-1			109 %						
Surrogate: Dibromofluoromethane (80-)	120%)				116%				
Surrogate: Toluene-d8 (80-120%)					103 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive

EM2727-01

Sampled: 03/14/07

Santa Ana, CA 92705

Report Number: IQC1612

Received: 03/14/07

Attention: Mehmet Pehlivan

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analysta	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Analyte			Dimi	2	7100 2110			-	
Sample ID: IQC1612-10 (MWC021_WG) Reporting Units: ug/l	031407_0001 - Wa	ater)							
Acetone	EPA 8260B	7C16022	4.5	10	ND	1	03/16/07	03/17/07	
Benzene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Bromobenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Bromochloromethane	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Bromodichloromethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Bromoform	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
Bromomethane	EPA 8260B	7C16022	0.42	1.0	ND	1	03/16/07	03/17/07	
2-Butanone (MEK)	EPA 8260B	7C16022	3.8	5.0	ND	1	03/16/07	03/17/07	
n-Butylbenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
sec-Butylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
tert-Butylbenzene	EPA 8260B	7C16022	0.22	1.0	ND	1	03/16/07	03/17/07	
Carbon Disulfide	EPA 8260B	7C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
Carbon tetrachloride	EPA 8260B	7C16022	0.28	0.50	ND]	03/16/07	03/17/07	
Chlorobenzene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	
Chloroethane	EPA 8260B	7C16022	0.40	2.0	ND]	03/16/07	03/17/07	
Chloroform	EPA 8260B	7C16022	0.33	1.0	0.50	1	03/16/07	03/17/07	J
Chloromethane	EPA 8260B	7C16022	0.40	2.0	ND	1	03/16/07	03/17/07	
2-Chlorotoluene	EPA 8260B	7C16022	0.28	1.0	ND]	03/16/07	03/17/07	
4-Chlorotoluene	EPA 8260B	7C16022	0.29	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C16022	0.97	2.0	ND	1	03/16/07	03/17/07	
Dibromochloromethane	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,4-Dichlorobenzene	EPA 8260B	7C16022	0.37	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichlorobenzene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
1,3-Dichlorobenzene	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
Dichlorodifluoromethane	EPA 8260B	7C16022	0.79	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloroethane	EPA 8260B	7C16022	0.28	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloroethane	EPA 8260B	7C16022	0.27	1.0	0.52	1	03/16/07	03/17/07	J
1,1-Dichloroethene	EPA 8260B	7C16022	0.42	1.0	0.46	1	03/16/07	03/17/07	J
cis-1,2-Dichloroethene	EPA 8260B	7C16022	0.32	1.0	4.1	1	03/16/07	03/17/07	
trans-1,2-Dichloroethene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,2-Dichloropropane	EPA 8260B	7C16022	0.35	1.0	ND	1	03/16/07	03/17/07	
2,2-Dichloropropane	EPA 8260B	7C16022	0.34	1.0	ND	1	03/16/07	03/17/07	
cis-1,3-Dichloropropene	EPA 8260B	7C16022	0.22	0.50	ND	1	03/16/07	03/17/07	
1,1-Dichloropropene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
trans-1,3-Dichloropropene	EPA 8260B	7C16022	0.32	0.50	ND	1	03/16/07	03/17/07	
Ethylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Hexachlorobutadiene	EPA 8260B	7C16022	0.38	1.0	ND	1	03/16/07	03/17/07	
2-Hexanone	EPA 8260B	7C16022	2.6	6.0	ND	1	03/16/07	03/17/07	
Iodomethane	EPA 8260B	7C16022	1.0	2.0	ND	. 1	03/16/07	03/17/07	
Isopropylbenzene	EPA 8260B	7C16022	0.25	1.0	ND	1	03/16/07	03/17/07	
Test America - Irvine CA									

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

HOC 1007

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive Santa Ana, CA 92705 EM2727-01

Report Number: 1QC1612

Sampled: 03/14/07

Received: 03/14/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1612-10 (MWC021_WG0	31407_0001 - Wa	ater) - cont.							
Reporting Units: ug/l									
p-lsopropyltoluene	EPA 8260B	7C16022	0.28	1.0	ND	1	03/16/07	03/17/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Methylene chloride	EPA 8260B	7C16022	0.95	1.0	ND	1	03/16/07	03/17/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C16022	3.5	5.0	ND	1	03/16/07	03/17/07	
n-Propylbenzene	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
Styrene	EPA 8260B	7C16022	0.16	1.0	ND	1	03/16/07	03/17/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C16022	0.27	1.0	ND	1	03/16/07	03/17/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C16022	0.24	1.0	ND	1	03/16/07	03/17/07	
Tetrachloroethene	EPA 8260B	7C16022	0.32	1.0	ND	1	03/16/07	03/17/07	
Tetrahydrofuran (THF)	EPA 8260B	7C16022	3.5	10	ND	1.	03/16/07	03/17/07	
Toluene	EPA 8260B	7C16022	0.36	1.0	ND	1	03/16/07	03/17/07	•
1,2,3-Trichlorobenzene	EPA 8260B	7C16022	0.30	1.0	ND	I	03/16/07	03/17/07	
1,2,4-Trichlorobenzene	EPA 8260B	7 C16022	0.48	1.0	ND	1	03/16/07	03/17/07	
1,1,2-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
I,I,1-Trichloroethane	EPA 8260B	7C16022	0.30	1.0	ND	1	03/16/07	03/17/07	
Trichloroethene	EPA 8260B	7C16022	0.26	1.0	11	1	03/16/07	03/17/07	
Trichlorofluoromethane	EPA 8260B	7C16022	0.34	2.0	ND	1	03/16/07	03/17/07	
1,2,3-Trichloropropane	EPA 8260B	7C16022	0.40	1.0	ND	1	03/16/07	03/17/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C16022	0.23	1.0	ND	1	03/16/07	03/17/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C16022	0.26	1.0	ND	1	03/16/07	03/17/07	
Vinyl acetate	EPA 8260B	7C16022	1.7	6.0	ND	1	03/16/07	03/17/07	
Vinyl chloride	EPA 8260B	7C16022	0.30	0.50	ND	1	03/16/07	03/17/07	
Xylenes, Total	EPA 8260B	7C16022	0.90	1.0	ND	1	03/16/07	03/17/07	
Surrogate: 4-Bromofluorobenzene (80-120)	%)				109 %				
Surrogate: Dibromofluoromethane (80-120					115 %				
Surrogate: Toluene-d8 (80-120%)					104 %				

TestAmerica - Irvine, CANicholas Marz
Project Manager

DOC1001

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_DC #: 16739A1	VALIDATION COMPLETENESS WORKSHEET	
SDG #: IQC1612	Tier 1	F
aboratory: Test America		Revi

iewer: 2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
l.	Technical holding times	Δ	Sampling dates: 3/14/0 7
11.	GC/MS Instrument performance check	N	
III.	Initial calibration	N	
IV.	Continuing calibration	N	
V.	Blanks	Α_	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	Δ	
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	N	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	Ν	
XVII.	Field blanks	W	

Note:

A = Acceptable

N = Not provided/applicable

SW = See worksheet

ND = No compounds detected

R = Rinsate FB = Field blank D = Duplicate

TB = Trip blank EB = Equipment blank

Validated Samples:

		walv						
5	1 }	MWB013_WG031407_0001	11	7614022 - 841	21		31	
6	2 1	MWG004_WG031407_0001	12		22		32	
7	₃ 1	TMW_14_WG031407_0001	13		23		33	
ય	4	TMW_11_WG031407_0001	14		24	<u> </u>	34	
9	5 1	WCC_5S_WG031407_0001	15		25		35	
10	6 \	MWC021_WG031407_0001	16		26		36	
	7	MWB013_WG031407_0001MS	17		27		37	
	8 \	MWB013_WG031407_0001MSD	18		28		38	
	9		19		29		39	
	10		20		30		40	

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 22, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Volatiles

Validation Level:

Tier 2

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC2470

Sample Identification

MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002 CMW002_WG032207_0001 MWB028_WG032207_0001MS MWB028_WG032207_0001MSD

Introduction

This data review covers 6 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
2/27/07	2-Butanone	0.044 (≥0.05)	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002 MWB028_WG032207_0001MS MWB028_WG032207_0001MSD 7C27024-BLK1	J (all detects) UJ (all non-detects)	A
3/21/07	2-Butanone	0.047 (≥0.05)	CMW002_WG032207_0001 7C29027-BLK1	J (all detects) UJ (all non-detects)	А

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
3/27/07	Acetone	27.1	MWB028_WG032207_0001 MWB027_WG032207_0002 MWB028_WG032207_0001 MS MWB028_WG032207_0001 MSD 7C27024-BLK1	J (all detects) UJ (all non-detects)	A
3/29/07	Tetrahydrofuran 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	44 80.9 26.5 70.8	CMW002_WG032207_0001 7C29027-BLK1	J (all detects) UJ (all non-detects)	А
3/30/07	Acetone	41.3	CMW002_WG032207_0001 7C30007-BLK1	J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
7C27024-BLK1	3/27/07	Tetrahydrofuran Toluene	8.04 ug/L 0.440 ug/L	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002
7C29027-BLK1	3/29/07	Tetrahydrofuran	5.88 ug/L	CMW002_WG032207_0001
7C30007-BLK1	3/30/07	Methylene chloride	1.64 ug/L	CMW002_WG032207_0001

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound TIC (RT in minutes)	Reported Concentration	Modified Final Concentration
MWB028_WG032207_0001	Toluene	0.84 ug/L	1.0U ug/L
MWB027_WG032207_0001	Toluene	1.2 ug/L	1.2U ug/L
MWB027_WG032207_0002	Toluene	0.91 ug/L	1.0U ug/L

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
7C27024-BS1	Acetone	156 (30-140)	MWB028_WG032207_0001 MWB027_WG032207_0002 7C27024-BLK1	J (all detects)	P
7C27024-BS1	2-Butanone	150 (40-140)	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002 7C27024-BLK1	J (all detects)	P
7C29027-BS1	2-Butanone 1,2-Dibromo-3-chloropropane 2-Hexanone 4-Methyl-2-pentanone	268 (40-140) 142 (50-135) 248 (45-140) 170 (45-140)	CMW002_WG032207_0001 7C29027-BLK1	J (all detects) J (all detects) J (all detects) J (all detects)	Р

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

Samples MWB027_WG032207_0001 and MWB027_WG032207_0002 were identified as field duplicates. No volatiles were detected in any of the samples with the following exceptions:

	Concentra		
Compound	MWB027_WG032207_0001	MWB027_WG032207_0002	RPD
Chloroform	4.8	4.1	16
1,1-Dichloroethene	170	160	6
cis-1,2-Dichloroethene	120	110	9
trans-1,2-Dichloroethene	1.1	0.72	42
Tetrachloroethene	2.2	1.8	20
Toluene	1.2	0.91	27

	Concentr	ation (ug/L)	
Compound	MWB027_WG032207_0001	MWB027_WG032207_0002	RPD
Trichlorofluoromethane	22	19	15
Trichloroethene	400	370	8
1,1-Dichloroethane	1.0U	0.3	200

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Volatiles - Data Qualification Summary - SDG IQC2470

SDG	Sample	Compound	Flag	A or P	Reason
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002 CMW002_WG032207_0001	2-Butanone	J (all detects) UJ (all non-detects)	A	Initial calibration (RRF)
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0002 CMW002_WG032207_0001	Acetone	J (all detects) UJ (all non-detects)	A	Continuing calibration (%D)
IQC2470	CMW002_WG032207_0001	Tetrahydrofuran 2-Butanone 4-Methyl-2-pentanone 2-Hexanone	J (all detects) UJ (all non-detects)	А	Continuing calibration (%D)
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0001 MWB027_WG032207_0002	2-Butanone	J (all detects)	Р	Laboratory control samples (%R)
IQC2470	MWB028_WG032207_0001 MWB027_WG032207_0002	Acetone	J (all detects)	Р	Laboratory control samples (%R)
IQC2470	CMW002_WG032207_0001	2-Butanone 1,2-Dibromo-3-chloropropane 2-Hexanone 4-Methyl-2-pentanone	J (all detects) J (all detects) J (all detects) J (all detects)	Р	Laboratory control samples (%R)

Boeing Realty Corp., Bldg C-6 Torrance Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC2470

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
IQC2470	MWB028_WG032207_0001	Toluene	1.0U ug/L	А
IQC2470	MWB027_WG032207_0001	Toluene	1.2U ug/L	А
IQC2470	MWB027_WG032207_0002	Toluene	1.0U ug/L	А

Test America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC2470-05 (MWB028_WG	032207_0001 - W:	ater)							
Reporting Units: ug/l									
Acetone	EPA 8260B	7C27024	4.5	10	ND 4	J I	03/27/07	03/27/07	L
Benzene	EPA 8260B	7C27024	0.28	1.0	0.73	1	03/27/07	03/27/07	j
Bromobenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/27/07	
Bromochloromethane	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/27/07	
Bromodichloromethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
Bromoform	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/27/07	
Bromomethane	EPA 8260B	7C27024	0.42	1.0	ND	. 1	03/27/07	03/27/07	
2-Butanone (MEK)	EPA 8260B	7C27024	3.8	5.0	ND U	J 1	03/27/07	03/27/07	L
n-Butylbenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/27/07	
sec-Butylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/27/07	
tert-Butylbenzene	EPA 8260B	7C27024	0.22	1.0	ND	1	03/27/07	03/27/07	
Carbon Disulfide	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/27/07	
Carbon tetrachloride	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/27/07	
Chlorobenzene	EPA 8260B	7C27024	0.36	1.0	ND	1	03/27/07	03/27/07	
Chloroethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/27/07	
Chloroform	EPA 8260B	7C27024	0.33	1.0	3.0	1	03/27/07	03/27/07	
Chloromethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/27/07	
2-Chlorotoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
4-Chlorotoluene	EPA 8260B	7C27024	0.29	1.0	ND	1	03/27/07	03/27/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C27024	0.97	2.0	ND	1	03/27/07	03/27/07	
Dibromochloromethane	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/27/07	
1,4-Dichlorobenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/27/07	
1,2-Dichlorobenzene	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/27/07	
1,3-Dichlorobenzene	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/27/07	
Dichlorodifluoromethane	EPA 8260B	7C27024	0.79	1.0	ND	1	03/27/07	03/27/07	
1,2-Dichloroethane	EPA 8260B	7C27024	0.28	0.50	0.53	1	03/27/07	03/27/07	
1,1-Dichloroethane	EPA 8260B	7C27024	0.27	1.0	8.8	1	03/27/07	03/27/07	
1,1-Dichloroethene	EPA 8260B	7C27024	0.42	1.0	280	1	03/27/07	03/27/07	
cis-1,2-Dichloroethene	EPA 8260B	7C27024	0.32	1.0	17	1	03/27/07	03/27/07	
trans-1,2-Dichloroethene	EPA 8260B	7C27024	0.27	1.0	6.0	1	03/27/07	03/27/07	
1,2-Dichloropropane	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/27/07	
2,2-Dichloropropane	EPA 8260B	7C27024	0.34	1.0	ND	1	03/27/07	03/27/07	
cis-1,3-Dichloropropene	EPA 8260B	7C27024	0.22	0.50	ND	1	03/27/07	03/27/07	
1,1-Dichloropropene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
trans-1,3-Dichloropropene	EPA 8260B	7C27024	0.32	0.50	ND	1	03/27/07	03/27/07	•
Ethylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/27/07	
Hexachlorobutadiene	EPA 8260B	7C27024	0.38	1.0	ND	1	03/27/07	03/27/07	
2-Hexanone	EPA 8260B	7C27024	2.6	6.0	ND	1	03/27/07	03/27/07	
Iodomethane	EPA 8260B	7C27024	1.0	2.0	ND	1	03/27/07	03/27/07	
Isopropylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/27/07	
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Nicholas Marz

Project Manager

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TAIT Environmental/Boeing

701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727

Report Number: IQC2470

Sampled: 03/22/07

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC2470-05 (MWB028_W	G032207_0001 - W	ater) - cont.							
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/27/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/27/07	
Methylene chloride	EPA 8260B	7C27024	0.95	1.0	ND	1	03/27/07	03/27/07	
4-Methyl-2-pentanone (MlBK)	EPA 8260B	7C27024	3.5	5.0	ND	1	03/27/07	03/27/07	
n-Propylbenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/27/07	
Styrene	EPA 8260B	7C27024	0.16	1.0	ND	1	03/27/07	03/27/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/27/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C27024	0.24	1.0	ND	l	03/27/07	03/27/07	
Tetrachloroethene	EPA 8260B	7C27024	0.32	1.0	1.9	1	03/27/07	03/27/07	
Tetrahydrofuran (THF)	EPA 8260B	7C27024	3.5	10	ND	. 1	03/27/07	03/27/07	
Toluene	EPA 8260B	7C27024	0.36	1.0	0.84	ou1	03/27/07	03/27/07	В, Ј
1,2,3-Trichlorobenzene	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/27/07	
1,1,2-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
1,1,1-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/27/07	
Trichlorofluoromethane	EPA 8260B	7C27024	0.34	2.0	ND	1	03/27/07	03/27/07	
1,2,3-Trichloropropane	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/27/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C27024	0.23	1.0	ND	1	03/27/07	03/27/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C27024	0.26	1.0	ND	1	03/27/07	03/27/07	
Vinyl acetate	EPA 8260B	7C27024	1.7	6.0	ND	1	03/27/07	03/27/07	
Vinyl chloride	EPA 8260B	7C27024	0.30	0.50	ND	1	03/27/07	03/27/07	
Xylenes, Total	EPA 8260B	7C27024	0.90	1.0	ND	1	03/27/07	03/27/07	
Surrogate: 4-Bromofluorobenzene (80-1.	20%)				102 %				
Surrogate: Dibromofluoromethane (80-1	(20%)				107 %				
Surrogate: Toluene-d8 (80-120%)					102 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-05RE1 (MWB028_V	WG032207_0001	- Water) - co	nt.						
Reporting Units: ug/l									
Trichloroethene	EPA 8260B	7C28004	2.6	10	780	10	03/28/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-120)	%)				106 %				
Surrogate: Dibromofluoromethane (80-120	%)				107 %				
Surrogate: Toluene-d8 (80-120%)					110 %				

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Project Manager

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ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
•			Ziiiii	2	1100			,	
Sample ID: IQC2470-06 (MWB027_WG0 Reporting Units: ug/l	32207_0001 - Wa	ter)							
Benzene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
Bromobenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Bromochloromethane	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
Bromodichloromethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
Bromoform	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
Bromomethane	EPA 8260B	7C27024	0.42	1.0	ND	1	03/27/07	03/28/07	
2-Butanone (MEK)	EPA 8260B	7C27024	3.8	5.0	ND U	J 1	03/27/07	03/28/07	L
n-Butylbenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
sec-Butylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
tert-Butylbenzene	EPA 8260B	7C27024	0.22	1.0	ND	1	03/27/07	03/28/07	
Carbon Disulfide	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/28/07	
Carbon tetrachloride	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/28/07	
Chlorobenzene	EPA 8260B	7C27024	0.36	1.0	ND	1	03/27/07	03/28/07	
Chloroethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
Chloroform	EPA 8260B	7C27024	0.33	1.0	4.8	1	03/27/07	03/28/07	
Chloromethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
2-Chlorotoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
4-Chlorotoluene	EPA 8260B	7C27024	0.29	1.0	ND	1	03/27/07	03/28/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C27024	0.97	2.0	ND	1	03/27/07	03/28/07	
Dibromochloromethane	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,4-Dichlorobenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
1,2-Dichlorobenzene	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
1,3-Dichlorobenzene	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/28/07	
Dichlorodifluoromethane	EPA 8260B	7C27024	0.79	1.0	ND	1	03/27/07	03/28/07	
1,2-Dichloroethane	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/28/07	
1,1-Dichloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
1,1-Dichloroethene	EPA 8260B	7C27024	0.42	1.0	170	1	03/27/07	03/28/07	
cis-1,2-Dichloroethene	EPA 8260B	7C27024	0.32	1.0	120	1	03/27/07	03/28/07	
trans-1,2-Dichloroethene	EPA 8260B	7C27024	0.27	1.0	1.1	1	03/27/07	03/28/07	
1,2-Dichloropropane	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/28/07	
2,2-Dichloropropane	EPA 8260B	7C27024	0.34	1.0	ND	1	03/27/07	03/28/07	
cis-1,3-Dichloropropene	EPA 8260B	7C27024	0.22	0.50	ND	1	03/27/07	03/28/07	
1,1-Dichloropropene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
trans-1,3-Dichloropropene	EPA 8260B	7C27024	0.32	0.50	ND	1	03/27/07	03/28/07	
Ethylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
Hexachlorobutadiene	EPA 8260B	7C27024	0.38	1.0	ND	1	03/27/07	03/28/07	
2-Hexanone	EPA 8260B	7C27024	2.6	6.0	ND	1	03/27/07	03/28/07	
Iodomethane	EPA 8260B	7C27024	1.0	2.0	ND	1	03/27/07	03/28/07	
Isopropylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
p-Isopropyltoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
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Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive

EM2727

Santa Ana, CA 92705

Report Number: IQC2470

Sampled: 03/22/07

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC2470-06 (MWB027_WC	G032207_0001 - Wa	ater) - cont.							
Reporting Units: ug/l									
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
Methylene chloride	EPA 8260B	7C27024	0.95	1.0	ND	1	03/27/07	03/28/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C27024	3.5	5.0	ND	1	03/27/07	03/28/07	
n-Propylbenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Styrene	EPA 8260B	7C27024	0.16	1.0	ND	1	03/27/07	03/28/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C27024	0.24	1.0	ND	1	03/27/07	03/28/07	
Tetrachloroethene	EPA 8260B	7C27024	0.32	1.0	2.2	1	03/27/07	03/28/07	
Tetrahydrofuran (THF)	EPA 8260B	7C27024	3.5	10	ND	1	03/27/07	03/28/07	
Toluene	EPA 8260B	7C27024	0.36	1.0	1.2 U	1	03/27/07	03/28/07	В
1,2,3-Trichlorobenzene	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/28/07	
1,1,2-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
1,1,1-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
Trichlorofluoromethane	EPA 8260B	7C27024	0.34	2.0	22	1	03/27/07	03/28/07	
1,2,3-Trichloropropane	EPA 8260B	7 C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C27024	0.23	1.0	ND	1	03/27/07	03/28/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C27024	0.26	1.0	ND	1	03/27/07	03/28/07	
Vinyl acetate	EPA 8260B	7C27024	1.7	6.0	ND	1	03/27/07	03/28/07	
Vinyl chloride	EPA 8260B	7C27024	0.30	0.50	ND	1	03/27/07	03/28/07	
Xylenes, Total	EPA 8260B	7C27024	0.90	1.0	ND	1	03/27/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-12	0%)				101 %				
Surrogate: Dibromofluoromethane (80-12	10%)				120 %				
Surrogate: Toluene-d8 (80-120%)					103 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

701 N. Parkcenter Drive

Santa Ana, CA 92705

Project ID: Boeing C-6 Torrance

EM2727

Report Number: IQC2470

Sampled: 03/22/07

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Oualifiers
Sample ID: IQC2470-06RE1 (MWB	027_WG032207_0001								•
Reporting Units: ug/l									
Trichloroethene	EPA 8260B	7C28012	2.6	10	400	10	03/28/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80	0-120%)				106 %				
Surrogate: Dibromofluoromethane (8	0-120%)				119%				
Surrogate: Toluene-d8 (80-120%)					106%				

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TAIT Environmental/Boeing 701 N. Parkcenter Drive

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705

Report Number: IQC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-06RE2 (MWB02	7_WG032207_0001	- Water) - co	nt.						
Reporting Units: ug/l									
Acetone	EPA 8260B	7C29029	4.5	10	ND	1	03/29/07	03/30/07	
Surrogate: 4-Bromofluorobenzene (80-1	20%)				98 %				
Surrogate: Dibromofluoromethane (80-1	(20%)				96 %				
Surrogate: Toluene-d8 (80-120%)					99 %				

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Project Manager

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ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727

Report Number: 1QC2470

Sampled: 03/22/07

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Sample ID: IQC2470-07 (MWB027_WG032207_0002_Wster) Secure (PA 8260B) 7C27024 4.5 10 ND U_ 1 03/27/07 03/28/07 L Acetone EPA 8260B 7C27024 4.5 10 ND U_ 1 03/27/07 03/28/07 L Benzene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 <th></th> <th></th> <th></th> <th>MDL</th> <th>Reporting</th> <th></th> <th>Dilution</th> <th>Date</th> <th>Date</th> <th>Data Qualifiers</th>				MDL	Reporting		Dilution	Date	Date	Data Qualifiers
Reporting Units: ug/l EPA \$260B 7C27024 4.5 10 ND U	Analyte	Method	Batch	Limit	Limit	Result	ractor	Extracteu	Anaiyzeu	Quanners
Benzene	•	VG032207_0002 - W	ater)							
Bromobenzene		EPA 8260B	7C27024	4.5	10	ND U]	03/27/07	03/28/07	L
Bromochloromethane	Benzene	EPA 8260B	7C27024	0.28	. 1.0	ND	1	03/27/07	03/28/07	
Bromodichloromethane	Bromobenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Bromoform EPA 8260B 7C27024 0.40 1.0 ND 1 03/27/07 03/28/07 0.728/0	Bromochloromethane	EPA 8260B	7C27024	0.32	1.0	ND	l	03/27/07	03/28/07	
Brommethane	Bromodichloromethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
2-Butanone (MEK)	Bromoform	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
n-Butylbenzene EPA 8260B 7C27024 0.37 1.0 ND 1 03/27/07 03/28/07 sec-Butylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07 carbon Disulfide EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 Carbon Disulfide EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 Carbon Disulfide EPA 8260B 7C27024 0.36 1.0 ND 1 03/27/07 03/28/07 Carbon tetrachloride EPA 8260B 7C27024 0.36 1.0 ND 1 03/27/07 03/28/07 Chlorofem EPA 8260B 7C27024 0.36 1.0 ND 1 03/27/07 03/28/07 Chlorofemae EPA 8260B 7C27024 0.40 2.0 ND 1 03/27/07 03/28/07 Chlorofemae EPA 8260B 7C27024 0.29 1.0	Bromomethane	EPA 8260B	7C27024	0.42	1.0			03/27/07	03/28/07	
sec-Butylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07 tert-Butylbenzene EPA 8260B 7C27024 0.22 1.0 ND 1 03/27/07 03/28/07 Carbon Disulfide EPA 8260B 7C27024 0.48 1.0 ND 1 03/27/07 03/28/07 Carbon tetrachloride EPA 8260B 7C27024 0.48 1.0 ND 1 03/27/07 03/28/07 Chlorobenzene EPA 8260B 7C27024 0.36 1.0 ND 1 03/27/07 03/28/07 Chloroferm EPA 8260B 7C27024 0.40 2.0 ND 1 03/27/07 03/28/07 Chlorofermethane EPA 8260B 7C27024 0.33 1.0 ND 1 03/27/07 03/28/07 2-Chlorotoluene EPA 8260B 7C27024 0.29 1.0 ND 1 03/27/07 03/28/07 1,2-Dibromo-3-chloropropane EPA 8260B 7C27024 0.29 <	2-Butanone (MEK)	EPA 8260B	7C27024	3.8	5.0	ND V	j 1	03/27/07	03/28/07	L
tert-Butylbenzene EPA 8260B 7C27024 0.22 1.0 ND 1 03/27/07 03/28/07 Carbon Disulfide EPA 8260B 7C27024 0.48 1.0 ND I 03/27/07 03/28/07 Carbon tetrachloride EPA 8260B 7C27024 0.28 0.50 ND I 03/27/07 03/28/07 Chlorobetrace EPA 8260B 7C27024 0.36 1.0 ND I 03/27/07 03/28/07 Chlorothane EPA 8260B 7C27024 0.36 1.0 ND I 03/27/07 03/28/07 Chlorothane EPA 8260B 7C27024 0.33 1.0 4.1 1 03/27/07 03/28/07 Chlorothane EPA 8260B 7C27024 0.32 ND I 03/27/07 03/28/07 2-Chlorotoluene EPA 8260B 7C27024 0.28 1.0 ND I 03/27/07 03/28/07 1,2-Dibromo-3-chloropopane EPA 8260B 7C27024 0.28 1.0 ND <td>n-Butylbenzene</td> <td>EPA 8260B</td> <td>7C27024</td> <td>0.37</td> <td>1.0</td> <td>ND</td> <td>1</td> <td>03/27/07</td> <td>03/28/07</td> <td></td>	n-Butylbenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
Carbon Disulfide EPA 8260B 7C27024 0.48 1.0 ND I 03/27/07 03/28/07 Carbon tetrachloride EPA 8260B 7C27024 0.28 0.50 ND I 03/27/07 03/28/07 Chlorobenzene EPA 8260B 7C27024 0.36 1.0 ND I 03/27/07 03/28/07 Chlorotemane EPA 8260B 7C27024 0.40 2.0 ND I 03/27/07 03/28/07 Chlorotemane EPA 8260B 7C27024 0.40 2.0 ND I 03/27/07 03/28/07 Chlorotoluene EPA 8260B 7C27024 0.40 2.0 ND I 03/27/07 03/28/07 Chlorotoluene EPA 8260B 7C27024 0.28 1.0 ND I 03/27/07 03/28/07 2-Chlorotoluene EPA 8260B 7C27024 0.29 1.0 ND I 03/27/07 03/28/07 1,2-Dibromoelhoromethane EPA 8260B 7C27024 0.28 1.0	sec-Butylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
Carbon tetrachloride	tert-Butylbenzene	EPA 8260B	7C27024	0.22	1.0	ND	1	03/27/07	03/28/07	
Chlorobenzene	Carbon Disulfide	EPA 8260B	7C270 2 4	0.48	1.0	ND	I	03/27/07	03/28/07	
Chloroethane EPA 8260B 7C27024 0.40 2.0 ND 1 03/27/07 03/28/07 Chloroform EPA 8260B 7C27024 0.33 1.0 4.1 1 03/27/07 03/28/07 Chlorotoluene EPA 8260B 7C27024 0.40 2.0 ND 1 03/27/07 03/28/07 2-Chlorotoluene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 4-Chlorotoluene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 1,2-Dibromo-3-chloropropane EPA 8260B 7C27024 0.29 1.0 ND 1 03/27/07 03/28/07 1,2-Dibromo-thane (EDB) EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024 0.37 1.0 ND 1 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024 0.32	Carbon tetrachloride	EPA 8260B	7C27024	0.28	0.50	ND	I	03/27/07	03/28/07	
Chloroform EPA 8260B 7C27024 0.33 1.0 4.1 1 03/27/07 03/28/07 Chloromethane EPA 8260B 7C27024 0.40 2.0 ND 1 03/27/07 03/28/07 2-Chlorotoluene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 4-Chlorotoluene EPA 8260B 7C27024 0.29 1.0 ND 1 03/27/07 03/28/07 4-Chlorotoluene EPA 8260B 7C27024 0.29 1.0 ND 1 03/27/07 03/28/07 4-Chlorotoluene EPA 8260B 7C27024 0.97 2.0 ND 1 03/27/07 03/28/07 1/2-Dibromo-3-chloropropane EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 1/2-Dibromo-brazene EPA 8260B 7C27024 0.37 1.0 ND 1 03/27/07 03/28/07 1/2-Dichlorobenzene EPA 8260B 7C27024 0.35 <t< td=""><td>Chlorobenzene</td><td>EPA 8260B</td><td>7C27024</td><td>0.36</td><td>1.0</td><td>ND</td><td>I</td><td></td><td>03/28/07</td><td></td></t<>	Chlorobenzene	EPA 8260B	7C27024	0.36	1.0	ND	I		03/28/07	
Chloromethane	Chloroethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
2-Chlorotoluene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 4-Chlorotoluene EPA 8260B 7C27024 0.29 1.0 ND 1 03/27/07 03/28/07 1,2-Dibromo-3-chloropropane EPA 8260B 7C27024 0.97 2.0 ND 1 03/27/07 03/28/07 1,2-Dibromochlaromethane EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 1,2-Dibromochlaromethane EPA 8260B 7C27024 0.40 1.0 ND 1 03/27/07 03/28/07 1,4-Dichlorobenzene EPA 8260B 7C27024 0.37 1.0 ND 1 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND 1 03/27/07 03/28/07 1,3-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND 1 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024	Chloroform	EPA 8260B	7C27024	0.33	1.0	4.1	1	03/27/07	03/28/07	
4-Chlorotoluene EPA 8260B 7C27024 0.29 I.0 ND 1 03/27/07 03/28/07 1,2-Dibromo-3-chloropropane EPA 8260B 7C27024 0.97 2.0 ND 1 03/27/07 03/28/07 Dibromochloromethane EPA 8260B 7C27024 0.28 1.0 ND I 03/27/07 03/28/07 1,2-Dibromoethane (EDB) EPA 8260B 7C27024 0.40 1.0 ND I 03/27/07 03/28/07 1,4-Dichlorobenzene EPA 8260B 7C27024 0.37 1.0 ND I 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND I 03/27/07 03/28/07 1,3-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND I 03/27/07 03/28/07 1,2-Dichlorothane EPA 8260B 7C27024 0.28 0.50 ND I 03/27/07 03/28/07 1,1-Dichlorothane EPA 8260B 7C27024	Chloromethane	EPA 8260B	7C27024	0.40	2.0	ND	1	03/27/07	03/28/07	
1,2-Dibromo-3-chloropropane	2-ChlorotoIuene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
Dibromochloromethane EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 1,2-Dibromoethane (EDB) EPA 8260B 7C27024 0.40 1.0 ND 1 03/27/07 03/28/07 1,4-Dichlorobenzene EPA 8260B 7C27024 0.37 1.0 ND 1 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND 1 03/27/07 03/28/07 1,3-Dichlorobenzene EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 1,2-Dichloroethane EPA 8260B 7C27024 0.79 1.0 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.22 1.0 0.30 1 03/27/07 03/28/07 J 1,1-Dichloroethane EPA 8260B	4-Chlorotoluene	EPA 8260B	7C27024	0.29	1.0	ND	1	03/27/07		
1,2-Dibromoethane (EDB) EPA 8260B 7C27024 0.40 1.0 ND 1 03/27/07 03/28/07 1,4-Dichlorobenzene EPA 8260B 7C27024 0.37 1.0 ND 1 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND 1 03/27/07 03/28/07 1,3-Dichlorobenzene EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 Dichlorodifluoromethane EPA 8260B 7C27024 0.79 1.0 ND 1 03/27/07 03/28/07 1,2-Dichloroethane EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 1,1-Dichloroethene EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 cis-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 <	1,2-Dibromo-3-chloropropane	EPA 8260B	7C27024	0.97	2.0	ND	1	03/27/07	03/28/07	
1,4-Dichlorobenzene EPA 8260B 7C27024 0.37 1.0 ND 1 03/27/07 03/28/07 1,2-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND 1 03/27/07 03/28/07 1,3-Dichlorobenzene EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 Dichlorodifluoromethane EPA 8260B 7C27024 0.79 1.0 ND 1 03/27/07 03/28/07 1,2-Dichloroethane EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 1,1-Dichloroethene EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 trans-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 <tr< td=""><td>Dibromochloromethane</td><td>EPA 8260B</td><td>7C27024</td><td>0.28</td><td>1.0</td><td>ND</td><td>I</td><td>03/27/07</td><td>03/28/07</td><td></td></tr<>	Dibromochloromethane	EPA 8260B	7C27024	0.28	1.0	ND	I	03/27/07	03/28/07	
1,2-Dichlorobenzene EPA 8260B 7C27024 0.32 1.0 ND 1 03/27/07 03/28/07 1,3-Dichlorobenzene EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 Dichlorodifluoromethane EPA 8260B 7C27024 0.79 1.0 ND 1 03/27/07 03/28/07 1,2-Dichloroethane EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 1,1-Dichloroethene EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 cis-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 trans-1,2-Dichloropropane EPA 8260B 7C27024 0.27 1.0 0.72 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07	1,2-Dibromoethane (EDB)	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,3-Dichlorobenzene EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 Dichlorodifluoromethane EPA 8260B 7C27024 0.79 1.0 ND 1 03/27/07 03/28/07 1,2-Dichloroethane EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 1,1-Dichloroethene EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 cis-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 1,2-Dichloroethene EPA 8260B 7C27024 0.27 1.0 0.72 1 03/27/07 03/28/07 1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 cis-1,3-Dichloropropene EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07	1,4-Dichlorobenzene	EPA 8260B	7C27024	0.37	1.0	ND	1	03/27/07	03/28/07	
Dichlorodifluoromethane EPA 8260B 7C27024 0.79 1.0 ND 1 03/27/07 03/28/07 1,2-Dichloroethane EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 J 1,1-Dichloroethane EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 J cis-1,2-Dichloroethane EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 03/28/07 0.72 1 03/27/07 03/28/07 03/28/07 03/28/07 0.72 1 03/27/07 03/28/07 03/28/07 0.2 0.2 0.2 0.0 ND 1 03/27/07 03/28/07 03/28/07 0.2 0.2 0.2 0.0 ND 1 03/27/07 03/28/07 0.2 0.2 0.2 0.2 0.2 0.2	1,2-Dichlorobenzene	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
1,2-Dichloroethane EPA 8260B 7C27024 0.28 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 J 1,1-Dichloroethene EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 C cis-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 J trans-1,2-Dichloroethene EPA 8260B 7C27024 0.27 1.0 0.72 I 03/27/07 03/28/07 J 1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 cis-1,3-Dichloropropene EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND <	1,3-Dichlorobenzene	EPA 8260B	7C27024	0.35	1.0	ND		03/27/07	03/28/07	
1,1-Dichloroethane EPA 8260B 7C27024 0.27 1.0 0.30 1 03/27/07 03/28/07 J 1,1-Dichloroethene EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 Company cis-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 J trans-1,2-Dichloroethene EPA 8260B 7C27024 0.27 1.0 0.72 I 03/27/07 03/28/07 J 1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 cis-1,3-Dichloropropene EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07	Dichlorodifluoromethane	EPA 8260B	7C27024	0.79	1.0	ND	1		03/28/07	
1,1-Dichloroethene EPA 8260B 7C27024 0.42 1.0 160 1 03/27/07 03/28/07 cis-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 trans-1,2-Dichloroethene EPA 8260B 7C27024 0.27 1.0 0.72 I 03/27/07 03/28/07 J 1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 cis-1,3-Dichloropropene EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 Ethylbenzene EPA 8260B	1,2-Dichloroethane	EPA 8260B	7C27024	0.28	0.50	ND	1	03/27/07	03/28/07	
cis-1,2-Dichloroethene EPA 8260B 7C27024 0.32 1.0 110 1 03/27/07 03/28/07 J trans-1,2-Dichloroethene EPA 8260B 7C27024 0.27 1.0 0.72 I 03/27/07 03/28/07 J 1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 cis-1,3-Dichloropropene EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 Ethylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	1,1-Dichloroethane	EPA 8260B	7C27024	0.27	1.0	0.30	1	03/27/07	03/28/07	J
trans-1,2-Dichloroethene EPA 8260B 7C27024 0.27 1.0 0.72 I 03/27/07 03/28/07 J 1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 03/28/07 03/28/07 03/28/07 03/28/07 03/28/07 03/28/07 03/28/07 03/28/07 0.25 0.50 ND 1 03/27/07 03/28/07 03/28/07 03/28/07 0.25 0.50 ND 1 03/27/07 03/28/07 03/28/07 0.25 0.50 ND 1 03/27/07 03/28/07 0.25 0.50 ND 1 03/27/07 03/28/07 0.25 0.50 ND 1 03/27/07 03/28/07 0.25 0.25 0.50 ND 1 03/27/07 03/28/07 0.25 0.25 0.50 ND 1 03/27/07 03/28/07 0.25 0.25	1,1-Dichloroethene	EPA 8260B		0.42	1.0	160	1	03/27/07	03/28/07	
1,2-Dichloropropane EPA 8260B 7C27024 0.35 1.0 ND 1 03/27/07 03/28/07 2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 cis-1,3-Dichloropropene EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 Ethylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	cis-1,2-Dichloroethene	EPA 8260B	7C27024	0.32	1.0	110	1	03/27/07	03/28/07	
2,2-Dichloropropane EPA 8260B 7C27024 0.34 1.0 ND 1 03/27/07 03/28/07 cis-1,3-Dichloropropene EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 Ethylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	trans-1,2-Dichloroethene	EPA 8260B	7C27024	0.27	1.0	0.72	I	03/27/07	03/28/07	J
z.,2 Dishibotopropens EPA 8260B 7C27024 0.22 0.50 ND 1 03/27/07 03/28/07 1,1-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 Ethylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	1,2-Dichloropropane	EPA 8260B	7C27024	0.35	1.0	ND	1	03/27/07	03/28/07	
1,1-Dichloropropene EPA 8260B 7C27024 0.28 1.0 ND 1 03/27/07 03/28/07 trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 Ethylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	2,2-Dichloropropane	EPA 8260B	7C27024	0.34	1.0	ND	1	03/27/07	03/28/07	
trans-1,3-Dichloropropene EPA 8260B 7C27024 0.32 0.50 ND 1 03/27/07 03/28/07 Ethylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	cis-1,3-Dichloropropene	EPA 8260B	7C27024	0.22	0.50	ND	1	03/27/07	03/28/07	
Ethylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	1,1-Dichloropropene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
	trans-1,3-Dichloropropene	EPA 8260B	7C27024	0.32	0.50	ND	1	03/27/07	03/28/07	
	Ethylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	
Hexachoroputatione EPA \$200B /C2/024 0.38 1.0 10D 1 03/27/07 03/28/07	Hexachlorobutadiene	EPA 8260B	7C27024	0.38	1.0	ND	1	03/27/07	03/28/07	
2-Hexanone EPA 8260B 7C27024 2.6 6.0 ND 1 03/27/07 03/28/07	2-Hexanone	EPA 8260B	7C27024	2.6	6.0	ND	1	03/27/07	03/28/07	
Iodomethane EPA 8260B 7C27024 1.0 2.0 ND 1 03/27/07 03/28/07	Iodomethane	EPA 8260B	7C27024	1.0	2.0	ND	1	03/27/07	03/28/07	
Isopropylbenzene EPA 8260B 7C27024 0.25 1.0 ND 1 03/27/07 03/28/07	Isopropylbenzene	EPA 8260B	7C27024	0.25	1.0	ND	1	03/27/07	03/28/07	

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Nicholas Marz

Project Manager

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ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705

Report Number: IQC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC2470-07 (MWB027_WG	032207_0002 - Wa	ater) - cont.							
Reporting Units: ug/l									
p-Isopropyltoluene	EPA 8260B	7C27024	0.28	1.0	ND	1	03/27/07	03/28/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C27024	0.32	1.0	ND	1	03/27/07	03/28/07	
Methylene chloride	EPA 8260B	7C27024	0.95	1.0	ND	1	03/27/07	03/28/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C27024	3.5	5.0	ND	1	03/27/07	03/28/07	
n-Propylbenzene	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
Styrene	EPA 8260B	7C27024	0.16	1.0	ND	1	03/27/07	03/28/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C27024	0.27	1.0	ND	1	03/27/07	03/28/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C27024	0.24	1.0	ND	1	03/27/07	03/28/07	
Tetrachloroethene	EPA 8260B	7C27024	0.32	1.0	1.8	1	03/27/07	03/28/07	
Tetrahydrofuran (THF)	EPA 8260B	7C27024	3.5	10	ND	, 1	03/27/07	03/28/07	
Toluene	EPA 8260B	7C27024	0.36	1.0	0.91	DU 1	03/27/07	03/28/07	B, J
1,2,3-Trichlorobenzene	EPA 8260B	7C27024	0.30	1.0	ND	I	03/27/07	03/28/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C27024	0.48	1.0	ND	1	03/27/07	03/28/07	
1,1,2-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	I	03/27/07	03/28/07	
1,1,1-Trichloroethane	EPA 8260B	7C27024	0.30	1.0	ND	1	03/27/07	03/28/07	
Trichlorofluoromethane	EPA 8260B	7C27024	0.34	2.0	19	1	03/27/07	03/28/07	
1,2,3-Trichloropropane	EPA 8260B	7C27024	0.40	1.0	ND	1	03/27/07	03/28/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C27024	0.23	1.0	ND	1	03/27/07	03/28/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C27024	0.26	1.0	ND	1	03/27/07	03/28/07	
Vinyl acetate	EPA 8260B	7C27024	1.7	6.0	ND	1	03/27/07	03/28/07	
Vinyl chloride	EPA 8260B	7C27024	0.30	0.50	ND	1	03/27/07	03/28/07	
Xylenes, Total	EPA 8260B	7C27024	0.90	1.0	ND	1	03/27/07	03/28/07	
Surrogate: 4-Bromofluorobenzene (80-120			102 %						
Surrogate: Dibromofluoromethane (80-120			119 %						
Surrogate: Toluene-d8 (80-120%)					102 %				

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Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727

Report Number: IQC2470

Sampled: 03/22/07

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Batch Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
_0002 - Water) - co	nt.						
0B 7C28004	2.6	10	370	10	03/28/07	03/28/07	
			103 %				
			112 %				
			110 %				
	_0002 - Water) - co	Batch Limit 0002 - Water) - cont.	Batch Limit Limit 0002 - Water) - cont.	Batch Limit Limit Result 0002 - Water) - cont. 0B 7C28004 2.6 10 370 103 % 112 %	Batch Limit Limit Result Factor 0002 - Water) - cont. 0B 7C28004 2.6 10 370 10 103 % 112 %	Batch Limit Limit Result Factor Extracted 0002 - Water) - cont. OB 7C28004 2.6 10 370 10 03/28/07 103 % 112 %	Batch Limit Limit Result Factor Extracted Analyzed 0002 - Water) - cont. 0

TestAmerica - Irvine, CANicholas Marz
Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

701 N. Parkcenter Drive Santa Ana, CA 92705

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07 Report Number: IQC2470 Received: 03/22/07 ·

Attention: Mehmet Pehlivan

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC2470-13 (CMW002_ Reporting Units: ug/l	_WG032207_0001 - W	ater)							
Benzene	EPA 8260B	7C29027	0.28	1.0	60	1	03/29/07	03/29/07	
Bromobenzene	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
Bromochloromethane	EPA 8260B	7C29027	0.32	1.0	ND	1	03/29/07	03/29/07	
Bromodichloromethane	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
Bromoform	EPA 8260B	7C29027	0.40	1.0	ND	1	03/29/07	03/29/07	
Bromomethane	EPA 8260B	7C29027	0.42	1.0	ND	1	03/29/07	03/29/07	
2-Butanone (MEK)	EPA 8260B	7C29027	3.8	5.0	ND U	1 1	03/29/07	03/29/07	C, L
n-Butylbenzene	EPA 8260B	7C29027	0.37	1.0	ND	1	03/29/07	03/29/07	
sec-Butylbenzene	EPA 8260B	7C29027	0.25	1.0	ND	1	03/29/07	03/29/07	
tert-Butylbenzene	EPA 8260B	7C29027	0.22	1.0	ND	1	03/29/07	03/29/07	
Carbon Disulfide	EPA 8260B	7C29027	0.48	1.0	ND	1	03/29/07	03/29/07	
Carbon tetrachloride	EPA 8260B	7C29027	0.28	0.50	ND	1	03/29/07	03/29/07	
Chloroethane	EPA 8260B	7C29027	0.40	2.0	ND	1	03/29/07	03/29/07	
Chloroform	EPA 8260B	7C29027	0.33	1.0	1.1	1	03/29/07	03/29/07	
Chloromethane	EPA 8260B	7C29027	0.40	2.0	ND	1	03/29/07	03/29/07	
2-Chlorotoluene	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
4-Chlorotoluene	EPA 8260B	7C29027	0.29	1.0	ND	1	03/29/07	03/29/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7C29027	0.97	2.0	ND	1	03/29/07	03/29/07	L
Dibromochloromethane	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7C29027	0.40	1.0	ND	1	03/29/07	03/29/07	
1,4-Dichlorobenzene	EPA 8260B	7C29027	0.37	1.0	9.2	1	03/29/07	03/29/07	
1,2-Dichlorobenzene	EPA 8260B	7C29027	0.32	1.0	1.4	1	03/29/07	03/29/07	
1,3-Dichlorobenzene	EPA 8260B	7C29027	0.35	1.0	ND	1	03/29/07	03/29/07	
Dichlorodifluoromethane	EPA 8260B	7C29027	0.79	1.0	ND	1	03/29/07	03/29/07	
1,2-Dichloroethane	EPA 8260B	7C29027	0.28	0.50	ND	1	03/29/07	03/29/07	
1,1-Dichloroethane	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
1,1-Dichloroethene	EPA 8260B	7C29027	0.42	1.0	1.2	1	03/29/07	03/29/07	
cis-1,2-Dichloroethene	EPA 8260B	7C29027	0.32	1.0	3.3	1	03/29/07	03/29/07	
trans-1,2-Dichloroethene	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
1,2-Dichloropropane	EPA 8260B	7C29027	0.35	1.0	ND	1	03/29/07	03/29/07	
2,2-Dichloropropane	EPA 8260B	7C29027	0.34	1.0	ND	1	03/29/07	03/29/07	
cis-1,3-Dichloropropene	EPA 8260B	7C29027	0.22	0.50	ND	ľ	03/29/07	03/29/07	
1,1-Dichloropropene	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
trans-1,3-Dichloropropene	EPA 8260B	7C29027	0.32	0.50	ND	1	03/29/07	03/29/07	
Ethylbenzene	EPA 8260B	7C29027	0.25	1.0	1.1	1	03/29/07	03/29/07	
Hexachlorobutadiene	EPA 8260B	7C29027	0.38	1.0	ND	1	03/29/07	03/29/07	
2-Hexanone	EPA 8260B	7C29027	2.6	6.0	ND U	1	03/29/07	03/29/07	C, L
Iodomethane	EPA 8260B	7C29027	1.0	2.0	ND	1	03/29/07	03/29/07	•
Isopropylbenzene	EPA 8260B	7C29027	0.25	1.0	ND	1	03/29/07	03/29/07	
p-Isopropyltoluene	EPA 8260B	7C29027	0.28	1.0	ND	1	03/29/07	03/29/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C29027	0.32	1.0	ND	1	03/29/07	03/29/07	
	_	**	-	•		=			

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Nicholas Marz

Project Manager

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17461 Derian Avenue. Suite 100, 1rvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705

Report Number: IQC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC2470-13 (CMW002_WG	032207_0001 - Wa	ater) - cont.							
Reporting Units: ug/l									
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C29027	3.5	5.0	ND U	1	03/29/07	03/29/07	L
n-Propylbenzene	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
Styrene	EPA 8260B	7C29027	0.16	1.0	ND	1	03/29/07	03/29/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C29027	0.27	1.0	ND	1	03/29/07	03/29/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C29027	0.24	1.0	ND	1	03/29/07	03/29/07	
Tetrachloroethene	EPA 8260B	7C29027	0.32	1.0	1.8	1	03/29/07	03/29/07	
Tetrahydrofuran (THF)	EPA 8260B	7C29027	3.5	10	ND K	J 1	03/29/07	03/29/07	C, L
Toluene	EPA 8260B	7C29027	0.36	1.0	ND	1	03/29/07	03/29/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C29027	0.48	1.0	ND	1	03/29/07	03/29/07	
1,1,2-Trichloroethane	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
1,1,1-Trichloroethane	EPA 8260B	7C29027	0.30	1.0	ND	1	03/29/07	03/29/07	
Trichlorofluoromethane	EPA 8260B	7C29027	0.34	2.0	ND	1	03/29/07	03/29/07	
1,2,3-Trichloropropane	EPA 8260B	7C29027	0.40	1.0	ND	1	03/29/07	03/29/07	
I,2,4-Trimethylbenzene	EPA 8260B	7C29027	0.23	1.0	ND	1	03/29/07	03/29/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C29027	0.26	1.0	ND	1	03/29/07	03/29/07	
Vinyl acetate	EPA 8260B	7C29027	1.7	6.0	ND	1	03/29/07	03/29/07	
Vinyl chloride	EPA 8260B	7C29027	0.30	0.50	ND	1	03/29/07	03/29/07	
Xylenes, Total	EPA 8260B	7C29027	0.90	1.0	2.4	1	03/29/07	03/29/07	
Surrogate: 4-Bromofluorobenzene (80-120)	%)				92 %				
Surrogate: Dibromofluoromethane (80-120	1%)				98 %				
Surrogate: Toluene-d8 (80-120%)					97 %				

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17461 Derian Avenue. Suite 100, 1rvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-13RE1 (CMW00)	2_WG032207_0001	- Water) - co	nt.						
Reporting Units: ug/l									
Chlorobenzene	EPA 8260B	7C30007	18	50	7400	50	03/30/07	03/30/07	
Surrogate: 4-Bromofluorobenzene (80-1.	20%)				89 %				
Surrogate: Dibromofluoromethane (80-1	(20%)				99 %				
Surrogate: Toluene-d8 (80-120%)					98 %				

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Attention: Mehmet Pehlivan

Project ID: Boeing C-6 Torrance

EM2727

Sampled: 03/22/07

Santa Ana, CA 92705

Report Number: 1QC2470

Received: 03/22/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: 1QC2470-13RE2 (CMW002_	WG032207_0001	- Water) - co	nt.						
Reporting Units: ug/l									
Acetone	EPA 8260B	7C30007	22	50	ND U	J 5	03/30/07	03/30/07	
Methylene chloride	EPA 8260B	7C30007	4.8	5.0	ND	5	03/30/07	03/30/07	
Trichloroethene	EPA 8260B	7C30007	1.3	5.0	340	5	03/30/07	03/30/07	
Surrogate: 4-Bromofluorobenzene (80-120	%)				96 %				
Surrogate: Dibromofluoromethane (80-12)	ን%)				99 %				
Surrogate: Toluene-d8 (80-120%)					98 %				

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LDC #: <u>16739B1</u>	VALIDATION COMPLETENESS WORKSHEET	Date: 5 /10 /6
SDG #: <u>IQC2470</u>	Tier 2	Page: <u>/</u> of <u>/</u>
Laboratory: Test America	<u></u>	Reviewer: 🦰
		2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
l.	Technical holding times	Δ	Sampling dates: 3 22 07
II.	GC/MS Instrument performance check	A	
111.	Initial calibration	3	% RSD. 12 ZO.99U
IV.	Continuing calibration	SV	
V.	Blanks	S	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	SW	CMW001-WG037207-0001 MS/P
VIII.	Laboratory control samples	53	Les
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	Δ	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	SW	D= 2+3
XVII.	Field blanks	N	

Note:

A = Acceptable

N = Not provided/applicable

SW = See worksheet

ND = No compounds detected

R = Rinsate FB = Field blank D = Duplicate

TB = Trip blank EB = Equipment blank

Validated Samples:

	water					
1 1	キェラ MWB028_WG032207_0001	11 \	7027024-81419	21	31	
2 1	3 = ዓ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡ ፡	12 2		22	32	
3 l	MWB027_WG032207_0002 D	13	7 e28012 - BIX).	r23	33	
4 5	6= 00, F, F, S CMW002_WG032207_0001	14 4	7029029-84	1 24	34	
5 	MWB028_WG032207_0001MS	15 S	7029027-BUK)	25	 35	'
₆ \	MWB028_WG032207_0001MSD	16 6	7030007-BLX	26	36	
7		17		27	37	
8		18		28	38	
9		19		29	39	
10		20		30	40	

TARGET COMPOUND WORKSHEET

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	U. 1,1,2-Trichloroethane	OO. 2,2-Dichloropropane	III. n-Butylbenzene	CCCC.1-Chlorohexane
B. Bromomethane	V. Benzene	PP. Bromochloromethane	JJJ. 1,2-Dichlorobenzene	DDDD. Isopropyl alcohol
C. Vinyl choride**	W. trans-1,3-Dichloropropene	QQ. 1,1-Dichloropropene	KKK. 1,2,4-Trichlorobenzene	EEEE. Acetonitrile
D. Chloroethane	X. Bromoform*	RR. Dibromomethane	LLL. Hexachlorobutadiene	FFF. Acrolein
E. Methylene chloride	Y. 4-Methyl-2-pentanone	SS. 1,3-Dichloropropane	MMM. Naphthalene	GGGG. Acrylonitrile
F. Acetone	Z. 2-Hexanone	TT. 1,2-Dibromoethane	NNN. 1,2,3-Trichlorobenzene	HHHH. 1,4-Dioxane
G. Carbon disulfide	AA. Tetrachloroethene	UU. 1,1,1,2-Tetrachloroethane	OOO. 1,3,5-Trichlorobenzene	IIII. Isobutyl alcohol
H. 1,1-Dichloroethene**	BB. 1,1,2,2-Tetrachloroethane*	VV. Isopropylbenzene	PPP. trans-1,2-Dichloroethene	JJJJ. Methacrylonitrile
I. 1,1-Dichloroethane*	CC. Toluene**	WW. Bromobenzene	QQQ. cis-1,2-Dichloroethene	KKKK. Propionitrile
J. 1,2-Dichloroethene, total	DD. Chlorobenzene*	XX. 1,2,3-Trichloropropane	RRR. m,p-Xylenes	LLLL. Ethyl ether
K. Chloroform**	EE. Ethylbenzene**	YY. n-Propylbenzene	SSS. o-Xylene	MMMM. Benzyl chloride
L. 1,2-Dichloroethane	FF. Styrene	ZZ. 2-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	NNNN.
M. 2-Butanone	GG. Xylenes, total	AAA. 1,3,5-Trimethylbenzene	UUU. 1,2-Dichlorotetrafiuoroethane	0000.
N. 1,1,1-Trichloroethane	HH. Vinyl acetate	BBB. 4-Chlorotoluene	VVV. 4-Ethyltoluene	dddd.
O. Carbon tetrachloride	II. 2-Chloroethylvinyl ether	CCC. tert-Butylbenzene	WWW. Ethanol	2000.
P. Bromodichloromethane	JJ. Dichlorodifluoromethane	DDD. 1,2,4-Trimethylbenzene	XXX. Di-isopropyl ether	RRRR.
Q. 1,2-Dichloropropane**	KK. Trichlorofluoromethane	EEE. sec-Butylbenzene	YYY. tert-Butanol	. SSSS.
R. cis-1,3-Dichloropropene	LL. Methyl-tert-butyl ether	FFF. 1,3-Dichlorobenzene	ZZZ. tert-Butyl alcohol	1111.
S. Trichloroethene	MM. 1,2-Dibromo-3-chloropropane	GGG. p-lsopropyltoluene	AAAA. Ethyl tert-butyl ether	uuuu.
T. Dibromochloromethane	NN. Methyl ethyl ketone	HHH. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether	www.

* = System performance check compounds (SPCC) for RRF; ** = Calibration check compounds (CCC) for %RSD.

VALIDATION FINDINGS WORKSHEET

Initial Calibration

Page:_ Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

LDC# 12913)

SDG#:

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". N N/A N/A N/A

Did the laboratory perform a 5 point calibration prior to sample analysis?

Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?

Did the initial calibration meet the acceptance criteria?

N/A A/N-N

Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF?

Qualifications	JIMJ/A					4/ FN [
Associated Samples	7e27024-BLK1,	1-123.5.6				7029027-BLK1,	¥									
Finding RRF (Limit: >0.05)	o. o 44					0.047										
Finding %RSD (Limit: <30.0%)																
Compound	۶					2										
Standard ID	1CAL - 3					1c41-23										
Date	Ľ	-				13/21/07	-						-			
#				ı										.		

VALIDATION FINDINGS WORKSHEET

LDC #: 167398) SDG #: pre conex

Continuing Calibration

2nd Reviewer: Reviewer:_

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ? Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF?

N N/A ∀ Z

Qualifications ⋖ 75 5 7 & 3 60007 - BLF 1, 1 C27024- BUK! 一なるしてのかてりし Associated Samples Finding RRF (Limit: >0.05) E Finding %D (Limit: <25.0%) 4.3 26.5 70.5 80.9 8,011 27.1 7 Tetrahydyrofurar Compound 11 ⋦ Standard ID 3 3 ر ا 3/29/07 4:08AM Ma ah:h 7 30 07 Was:8 329-107 70/12/2 Date +

LDC #: 16739B1

VALIDATION FINDINGS WORKSHEET

7 5 Page: 2nd Reviewer: Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Was a method blank associated with every sample in this SDG?

Y N N/A

Was a method blank analyzed at least once every 12 hours for each matrix and concentration?

Y/N N/A

Was there contamination in the method blanks? If yes, please see the qualifications below. Plank analysis date:

Sample Identification 64-1 6.0 6 Associated Samples: D.24 1c27b24/B1K 0.440 Blank 10 8,04 Tetrahyarahyan Mathylene ehloride Compound રુ Conc. units: Acetere

Blank analysis date: 3 29 07 Conc. units: 45	10	Associated Samples: H (ND)	
Compound	Blank ID	Sam	
	762 902 - BUK		
Techtalmydrohudar	82.5		
Acetone			
CROL			

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were also qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

to L Page: 2nd Reviewer: Reviewer: (MD) Was a method blank analyzed at least once every 12 hours for each matrix and concentration? Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". Sample Identification Sample Identification Was there contamination in the method blanks? If yes, please see the qualifications below. VALIDATION FINDINGS WORKSHEET Associated Samples: Associated Samples: Was a method blank associated with every sample in this SDG? METHOD: GC/MS VOA (EPA SW 846 Method 8260B) T BLK 7630007 Blank 10 Blank ID 1.64 LDC #: 167398/ Pfank analysis date: Compound Compound Blank analysis date: Methylene chloride Methylene chloride Conc. units: Y X N N N A Y N/A Conc. units: Acetone Acetone

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

16739B

LDC #: SDG #:

Matrix Spike/Matrix Spike Duplicates VALIDATION FINDINGS WORKSHEET

Page: Reviewer:_ 2nd Reviewer:_

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". N N

Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

N N/A

Was a MS/MSD analyzed every 20 samples of each matrix? Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	% R	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Limits)	Associated Samples	Qualifications
		e MW OOI - WGO 32207	7 Laz	163 ((OS)-01	(251-02) osl		(المصرا	1 And on
		9 - 0000 MSID	W) 591	Sh1-08	_	· ·	_		ـ ا
			7) 951	(C) 1-32	~) ((
			7			(Ch1-oh) 851	` ∩		7	
			•)	())			
)) ((
					()) ((
)	()	•	^		
))))			
)	())	^		
)))) (_		
)	()) ((
)	()		('		
)	()	(•		
)	()) (^		
)	()	<u> </u>			
) ·	()	~	^		
)	()) ((
		Compound	lnd		QC Limits (Soli)	ts (Soll)	RPD (Soil)		QC Limits (Water)	RPD (Water)
	Τ̈́	1,1-Dichloroethene			59-172%	72%	< 22%		61-145%	< 14%
	S.	Trichloroethene			62-137%	37%	< 24%		71-120%	< 14%
	>	Benzene			66-142%	42%	< 21%		76-127%	< 11%
	99	Toluene			59-139%	%68	≥ 21%		76-125%	≤ 13%
	DD.	Chlorobenzene			60-133%	33%	≥ 21%		75-130%	< 13%

VALIDATION FINDINGS WORKSHEET

LDC #: 167398/

SDG #:_

Laboratory Control Samples (LCS)

Page:

2nd Reviewer: Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Was a LCS required?

Y N N Y

Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

																								—
Qualifications	J Paut	٠ ١		À					1, 3 Polit			•												Spikalin Kalige
Associated Samples	7227024-BLF1,	1. W. 3.		7					7629027-11K	ゴ		~												THF was NOT
RPD (Limits)	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	Form 1, but
LCSD %R (Limits)	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	(()	hi 1 Dergh
LCS %R (Limits)	151 (SO-140)	150 (40-140)	-	O61-94) ası	_	())	()	(QHI-OH) 892	142 (50-135)	~	1		()			()	()	()	· ·	()	()	()	wan (was au
Compound	ш	≨		×					W	V ₩	4	>												Tetrahydnofuran (
CS/CSD ID	1627024-821								7 62 9027-8>															note # 4 Test
t Date																								
#			ĺ		1	1	1		1	1	1	1	1	1	1	1		1	1	1		1	1	

LDC#: 16739B)
SDG#: pu coner

VALIDATION FINDINGS WORKSHEET Field Duplicates

Page:_	
Reviewer:	17
2nd reviewer:	70

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Y N N/A Y N N/A

Were field duplicate pairs identified in this SDG? Were target compounds detected in the field duplicate pairs?

	Concentratio	ne us ly	
Compound	2	3	RPD
K	4.8	4-1	16
Н	170	160	le
886	120	110	9
PPP	1-1	0.72	42
AA	2.2	1-8	20

	Concentratio	n ()	
Compound			RPD
cc	1.2	0.91	27
KK	22	19	15
S	400	370	8
工	1.00	0.3	200

	Concentration (
Compound		RPD

	Concentration ()	
Compound		RPD

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 27, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Volatiles

Validation Level:

Tier 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC2895

Sample Identification

MWB019_WG032707_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.
- None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
2/28/07	2-Butanone	0.037 (≥0.05)	All samples in SDG IQC2895	J (all detects) UJ (all non-detects)	А

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria with the following exceptions:

Date	Compound	%D	Associated Samples	Flag	A or P
4/3/07	Acetone 2-Butanone 2,2-Dichloropropane 2-Hexanone	109.3 70.3 29.1 63.9	All samples in SDG IQC2895	J (all detects) UJ (all non-detects)	A

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples
7D0301 0-BLK1	4/3/07	Tetrahydrofuran Trichloroethene	8.04 ug/L 0.480 ug/L	All samples in SDG IQC2895

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported	Modified Final	
	TIC (RT in minutes)	Concentration	Concentration	
MWB019_WG032707_0001 (10X)	Tetrahydrofuran	64 ug/L	100U ug/L	

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
7D03010-BS1	Acetone 2-Butanone 1,2-Dibromo-3-chloropropane 2-Hexanone 4-Methyl-2-pentanone 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane	263 (30-140) 237 (40-140) 138 (50-135) 211 (45-140) 144 (45-140) 134 (55-130) 136 (60-130)	All samples in SDG IQC2895	J (all detects)	Р

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Volatiles - Data Qualification Summary - SDG IQC2895

SDG	Sample	Compound	Flag	A or P	Reason
IQC2895	MWB019_WG032707_0001	2-Butanone	J (all detects) UJ (all non-detects)	А	Initial calibration (RRF)
IQC2895	MWB019_WG032707_0001	Acetone 2-Butanone 2,2-Dichloropropane 2-Hexanone	J (all detects) UJ (all non-detects)	А	Continuing calibration (%D)
IQC2895	MWB019_WG032707_0001	Acetone 2-Butanone 1,2-Dibromo-3-chloropropane 2-Hexanone 4-Methyl-2-pentanone 1,1,2,2-Tetrachloroethane 1,2,3-Trichloropropane	J (all detects)	Р	Laboratory control samples (%R)

Boeing Realty Corp., Bldg C-6 Torrance Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC2895

SDG	Sample	Compound TIC (RT in minutes)	Modified Final Concentration	A or P
IQC2895	MWB019_WG032707_0001 (10X)	Tetrahydrofuran	100U ug/L	Α

Test America

ANALYTICAL TESTING CORPORATION 17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-6 Torrance

701 N. Parkcenter Drive

EM2727

Sampled: 03/27/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC2895

Received: 03/27/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC2895-07 (MWB019_V	WG032707 0001 - W	ater)							
Reporting Units: ug/i	-	•							
Chloroform	EPA 8260B	7D02027	16	50	3600	50	04/02/07	04/03/07	
Surrogate: 4-Bromofluorobenzene (80-	120%)				102 %				
Surrogate: Dibromofluoromethane (80)	-120%)				116%				
Surrogate: Toluene-d8 (80-120%)					110%				
Sample ID: IQC2895-07RE1 (MWB0	19 WG032707 0001	- Water)							
Reporting Units: ug/i	29_110002707_0001	· (Carea)							
Acetone	EPA 8260B	7D03010	45	100	ND U] 10	04/03/07	04/03/07	C, L
Benzene	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	C, D
Bromobenzene	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
Bromochloromethane	EPA 8260B	7D03010	3.2	10	ND	10	04/03/07	04/03/07	
Bromodichloromethane	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
Bromoform	EPA 8260B	7D03010	4.0	10	ND	10	04/03/07	04/03/07	
Bromomethane	EPA 8260B	7D03010	4.2	10	ND	10	04/03/07	04/03/07	
2-Butanone (MEK)	EPA 8260B	7D03010	38	50	ND U		04/03/07	04/03/07	C, L
n-Butylbenzene	EPA 8260B	7D03010	3.7	10	ND	10	04/03/07	04/03/07	-, -
sec-Butylbenzene	EPA 8260B	7D03010	2.5	10	ND	10	04/03/07	04/03/07	
tert-Butylbenzene	EPA 8260B	7D03010	2.2	10	ND	10	04/03/07	04/03/07	
Carbon Disulfide	EPA 8260B	7D03010	4.8	10	ND	10	04/03/07	04/03/07	
Carbon tetrachloride	EPA 8260B	7D03010	2.8	5.0	10	10	04/03/07	04/03/07	
Chlorobenzene	EPA 8260B	7D03010	3.6	10	ND	10	04/03/07	04/03/07	
Chloroethane	EPA 8260B	7D03010	4.0	20	ND	10	04/03/07	04/03/07	
Chloromethane	EPA 8260B	7D03010	4.0	20	ND	10	04/03/07	04/03/07	
2-Chlorotoluene	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	
4-Chlorotoluene	EPA 8260B	7D03010	2.9	10	ND	10	04/03/07	04/03/07	
1,2-Dibromo-3-chloropropane	EPA 8260B	7D03010	9.7	20	ND	10	04/03/07	04/03/07	L
Dibromochloromethane	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	
1,2-Dibromoethane (EDB)	EPA 8260B	7D03010	4.0	10	ND	10	04/03/07	04/03/07	
1,4-Dichlorobenzene	EPA 8260B	7D03010	3.7	10	ND	10	04/03/07	04/03/07	
1.2-Dichlorobenzene	EPA 8260B	7D03010	3.2	10	ND	10	04/03/07	04/03/07	
1,3-Dichlorobenzene	EPA 8260B	7D03010	3.5	10	ND	10	04/03/07	04/03/07	
Dichlorodifluoromethane	EPA 8260B	7D03010	7.9	10	ND	10	04/03/07	04/03/07	
1,2-Dichloroethane	EPA 8260B	7D03010	2.8	5.0	ND	10	04/03/07	04/03/07	
1,1-Dichloroethane	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
1,1-Dichloroethene	EPA 8260B	7D03010	4.2	10	4.3	10	04/03/07	04/03/07	J
cis-1,2-Dichloroethene	EPA 8260B	7D03010	3.2	10	ND	10	04/03/07	04/03/07	
trans-1,2-Dichloroethene	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
1,2-Dichloropropane	EPA 8260B	7D03010	3.5	10	ND	10	04/03/07	04/03/07	
2,2-Dichloropropane	EPA 8260B	7D03010	3.4	10	CNON	10	04/03/07	04/03/07	
cis-1,3-Dichloropropene	EPA 8260B	7D03010	2.2	5.0	ND	10	04/03/07	04/03/07	
1,1-Dichloropropene	EPA 8260B	7D03010	2.8	10	ND	10	04/03/07	04/03/07	

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

65/001

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IQC2895 <Page 19 of 76>

Test America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

701 N. Parkcenter Drive

Santa Ana, CA 92705

Project ID: Boeing C-6 Torrance

EM2727

Report Number: IQC2895

Sampled: 03/27/07

Received: 03/27/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
•				Limit	icsuit	ructox	ESZE ECCC	2 KH di y 2CU	Quantities
Sample ID: IQC2895-07RE1 (MWB019_	WG032707_0001	- Water) - co	nt.						
Reporting Units: ug/l trans-1,3-Dichloropropene	EPA 8260B	7D03010	3.2	5.0	ND	10	04/03/07	04/03/07	
Ethylbenzene	EPA 8260B	7D03010 7D03010							
Hexachlorobutadiene	EPA 8260B	7D03010	2.5	10 10	ND	10 10	04/03/07	04/03/07	
2-Hexanone	EPA 8260B EPA 8260B	7D03010 7D03010	3.8 26	60	ND U		04/03/07 04/03/07	04/03/07	0.1
Iodomethane	EPA 8260B	7D03010	10	20	ND Q.		04/03/07	04/03/07	C, L
Isopropylbenzene	EPA 8260B	7D03010		10	ND ND	10 10	04/03/07	04/03/07	
p-Isopropyltoluene	EPA 8260B	7D03010 7D03010	2.5 2.8	10	ND ND			04/03/07	
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7D03010 7D03010		10	ND ND	10 10	04/03/07 04/03/07	04/03/07	
Methylene chloride	EPA 8260B	7D03010	3.2	10				04/03/07	
•			9.5		ND	10	04/03/07	04/03/07	-
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7D03010	35	50	ND	10	04/03/07	04/03/07	L
n-Propylbenzene	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
Styrene	EPA 8260B	7D03010	1.6	10	ND	10	04/03/07	04/03/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7D03010	2.7	10	ND	10	04/03/07	04/03/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7D03010	2.4	10	ND	10	04/03/07	04/03/07	L
Tetrachloroethene	EPA 8260B	7D03010	3.2	10	150	10	04/03/07	04/03/07	
Tetrahydrofuran (THF)	EPA 8260B	7D03010	35	100	64 10		04/03/07	04/03/07	B, J
Toluene	EPA 8260B	7D03010	3.6	10	ND	10	04/03/07	04/03/07	
1,2,3-Trichlorobenzene	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
1,2,4-Trichlorobenzene	EPA 8260B	7D03010	4.8	10	ND	10	04/03/07	04/03/07	
1,1,2-Trichloroethane	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
1,1,1-Trichloroethane	EPA 8260B	7D03010	3.0	10	ND	10	04/03/07	04/03/07	
Trichloroethene	EPA 8260B	7D03010	2.6	10	160	10	04/03/07	04/03/07	
Trichlorofluoromethane	EPA 8260B	7D03010	3.4	20	ND	10	04/03/07	04/03/07	
1,2,3-Trichloropropane	EPA 8260B	7D03010	4.0	10	ND	10	04/03/07	04/03/07	L
1,2,4-Trimethylbenzene	EPA 8260B	7D03010	2.3	10	ND	10	04/03/07	04/03/07	
1,3,5-Trimethylbenzene	EPA 8260B	7D03010	2.6	10	ND	10	04/03/07	04/03/07	
Vinyl acetate	EPA 8260B	7D03010	17	60	ND	10	04/03/07	04/03/07	
Vinyl chloride	EPA 8260B	7D03010	3.0	5.0	ND	10	04/03/07	04/03/07	
Xylenes, Total	EPA 8260B	7D03010	9.0	10	ND	10	04/03/07	04/03/07	
Surrogate: 4-Bromofluorobenzene (80-120%	6)				103 %				
Surrogate: Dibromofluoromethane (80-120)	%)				111%				
Surrogate: Toluene-d8 (80-120%)					109 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

POST007

IQC2895 <Page 20 of 76>

LDC #: 16739C1	VALIDATION COMPLETENESS
SDG #: IQC2895	Tier 3
Laboratory: Test America	

2nd Reviewer

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
1.	Technical holding times	Δ	Sampling dates: 3 27 0 7
II.	GC/MS Instrument performance check	Δ	1 '1
III.	Initial calibration	sw	% RSD, r2 20.990
IV.	Continuing calibration	3	
V.	Blanks	ડ	
VI.	Surrogate spikes	Δ	
VII.	Matrix spike/Matrix spike duplicates	SW	TMW-06-WG032707-0001MS 1D
VIII.	Laboratory control samples	<u>چ</u> ₩	10>
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	<,	·
XI.	Target compound identification	À	
XII.	Compound quantitation/CRQLs	Δ	
XIII.	Tentatively identified compounds (TICs)	2	not reported
XIV.	System performance	Δ	J
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	2	

Note:

A = Acceptable

N = Not provided/applicable SW = See worksheet

ND = No compounds detected

R = Rinsate FB = Field blank D = Duplicate TB = Trip blank

EB = Equipment blank

WORKSHEET

Validated Samples:

Walk

	waux					
1]	2 = D K MWB019_WG032707_0001	11]	7003010 -BUX	<i>2</i> 1	31	
2		12 2	7002027-B41	22	32	
3		13		23	 33	
4		14		24	34	
5		15		25	35	
6		16		26	36	
7		17		27	 37	
8		18		28	38	
9		19		29	39	
10		20		30	40	

_DC#: 16739C/ SDG#: I GCZ895

VALIDATION FINDINGS CHECKLIST

Page:_	_/of	2
Reviewer:		
2nd Reviewer:	•	

Method: Volatiles (EPA SW 846 Method 8260B)

Metriod. Volatiles (CFA SVV 040 Wetriod 8200D)				
Validation Area	Yes	No	NA	Findings/Comments
100 e Chalcathadhlac Ilines san Sheathar San	1		-	
All technical holding times were met.	-]	_	
Cooler temperature criteria was met.				
INSCAUSIONAMENTO COMPANIES CARROLLES AND	T	T	T	
Were the BFB performance results reviewed and found to be within the specified criteria?	<u> -</u>			
Were all samples analyzed within the 12 hour clock criteria?				
United the state of the state o	1	J		
Did the laboratory perform a 5 point calibration prior to sample analysis?	<u> </u>	<u> </u>	<u> </u>	
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?			<u></u>	
Was a curve fit used for evaluation?	1	<u> </u>	_	
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	-	<u> </u>		
Were all percent relative standard deviations ($\%$ RSD) \leq 30% and relative response factors (RRF) \geq 0.05?				
IX Continuing Californian - 1. Programs - 1.				
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?				
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	_	·		
Were all percent differences (%D) \leq 25% and relative response factors (RRF) \geq 0.05?		_		
CHARLES TO SEE THE SECOND SECO				
Was a method blank associated with every sample in this SDG?	~			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				·
M. Surrogate spikes and the state of the sta				
Were all surrogate %R within QC limits?				
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?				
MIL Malinc Spike/Matrix spike dupicales				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.				
Was a MS/MSD analyzed every 20 samples of each matrix?	_	-		
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			-	
All Laboratory control samples				
Nas an LCS analyzed for this SDG?			1	

.DC#:16739C1 SDG#: T&C2895

VALIDATION FINDINGS CHECKLIST

Page: 2of 2 Reviewer: 5 2nd Reviewer: 5

				· · · · · · · · · · · · · · · · · · ·
Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	_			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?				No.
Extragio de Bublio Assurance and quality Control				
Were performance evaluation (PE) samples performed?				
Were the performance evaluation (PE) samples within the acceptance limits?		100		
Xapremalstandares with the second				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	/			
Were retention times within + 30 seconds of the associated calibration standard?				
Margor incombagantication				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?				
Did compound spectra meet specified EPA "Functional Guidelines" criteria?				
Were chromatogram peaks verified and accounted for?				
XIII. Controcurio egranua non (CRO) es				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	1	-		
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		-		
KIII apparation tried compared states (168)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?			1	·
Nere relative intensities of the major ions within \pm 20% between the sample and the eference spectra?			1	-
Did the raw data indicate that the laboratory performed a library search for all equired peaks in the chromatograms (samples and blanks)?			+	
IVsbystem performance in the state of the st				A State of the Sta
system performance was found to be acceptable.	1			
V (Overall assessment of data				
Overall assessment of data was found to be acceptable.				
Y))Feld dubicaless, a sense see and a confidence of the second				
ield duplicate pairs were identified in this SDG.	-	\bot		
arget compounds were detected in the field duplicates.			7	
VII.E.eld blanks 1				
ield blanks were identified in this SDG.	Ŧ			
arget compounds were detected in the field blanks.		7		

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	S. Trichloroethene	KK. Trichlorofluoromethane	the COO	
B. Bromomethane	T. Dibromochioromethane	LL. Methyl-tert-huts/ ather	occ. care building sense	UUU. 1,2-Dichlorotetrafluoroethane
C. Vinyl choride**			UCD. 1,2,4-1 nmethylbenzene	VVV. 4-Ethyltoluene
	U. 1,1,2-1 nchloroethane	MM. 1,2-Dibromo-3-chloropropane	EEE. sec-Butylbenzene	Www. Ethanol
D. Chloroethane	V. Benzene	NN. Methyl ethyl ketone	FFF. 1.3-Dichlombenzene	2 >>>
E. Methylene chloride	W. trans-1,3-Dichloropropene	OO, 2.2-Dichlomomana		AAA. Urisopropyi etner
F. Acetone	X. Bromoform*		GGG: p-isopropyroidene	YYY, tert-Butanol
		rr. Bromochloromethane	HHH. 1,4-Dichlorobenzene	ZZZ, tert-Butvi alcohol
G. Carbon disulfide	Y. 4-Methy/-2-pentanone	QQ. 1,1-Dichloropropene	III. D-Britvibanzana	
H. 1,1-Dichloroethene**	Z. 2-Hexanone	RR. Dibromomethase		AAAA, Etnyi tert-butyi ether
1. 1.1-Dichlomethane*	A		JJJ. 1,4-Dichlorobenzene	BBBB. tert-Amyl methyl ether
	AA. I etrachioroethene	SS. 1,3-Dichloropropane	KKK. 1,2,4-Trichlorobenzene	CCCC 1-Chlombavano
J. 1,2-Dichtoroethene, total	BB. 1,1,2,2-Tetrachloroethane*	TT. 1.9-Dihomosthana		
K. Chloroform**			LLL. Hexachiorobutadiene	DDDD. Isopropyl alcohol
	CC. I oluene	UU. 1,1,1,2-Tetrachioroethane	MMM. Naphthalene	EEEE, Acetonitdie
L. 1,2-Dichloroethane	DD. Chlorobenzene*	VV. Isopropylbenzene	NN	
M. 2-Butanone	EE. Ethylbenzene**	ייייי טייייי		rrr. Acrolein
N A A B		vv vv. bromobenzene	OOO. 1,3,5-Trichlorobenzene	GGGG. Acrylonitrile
''' ', '' '' I'' I IICHIO COSTNANO	FF. Styrene	XX. 1,2,3-Trichloropropane	PPP. trans-1,2-Dichloroethene	HHHH 4-Discoons
O. Carbon tetrachioride	GG. Xylenes, total	YY, n-Propylbenzene	000. cls-1.9-Dichlomethens	
P. Bromodichloromethane	HH. Vind acetate	77 2 041		IIII. Isooutyl alcohol
		ZZ. Z-Cniorotoluene	RRR. m,p-Xylenes	JJJJ. Methacrylonitrile
a. i.spropropane	II. 2-Chloroethylvinyl ether	AAA. 1,3,5-Trimethylbenzene	SSS. o-Xylene	KKKK. Propiositele
R. cls-1,3-Dichloropropene	JJ. Dichlorodifluoromethane	BBB. 4-Chlorotoluene	TTT. 1.1.2-Trichlorm-1.2.2-tri8omethore.	
-			The triangle transfer the still deligned	ָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָרָר

* = System performance check compounds (SPCC) for RRF; ** = Calibration check compounds (CCC) for %RSD.

SDG# IBC289 LDC #: 16139C

VALIDATION FINDINGS WORKSHEET Initial Calibration

Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". N N/A

Did the laboratory perform a 5 point calibration prior to sample analysis?

Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?

Were all %RSDs and RRFs within the validation criteria of ≤30 %RSD and ≥0.05 RRF? Did the initial calibration meet the acceptance criteria? N/N/ Y N N/A

Qualifications	1/LU1/A														
Associated Samples	All +BIL														
Finding RRF (Limit: <u>></u> 0.05)	0.037		-												
Finding %RSD (Limit: <30.0%)															
Compound	٤														
Standard ID	1CAL-60														
Date	12807	-													
#															

VALIDATION FINDINGS WORKSHEET

LDC # 16-13-9-0/ SDG # T & C.20-09-0/

Continuing Calibration

Page: Reviewer:_ 2nd Reviewer:

> Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's ? Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF?

V V V V

Qualifications 77 **Associated Samples** 7118+ Finding RRF (Limit: >0.05) Finding %D (Limit: <25.0%) 63.9 109.3 29.1 Compound 96 .€ 4 Standard ID 3 राजित्र Date

DC #: 1673901 SDG #: T @C2895

VALIDATION FINDINGS WORKSHEET

Page:

2nd Reviewer: Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Was a method blank associated with every sample in this SDG?

Was a method blank analyzed at least once every 12 hours for each matrix and concentration?

Was there contamination in the method blanks? If yes, please see the qualifications below. Blank analysis date: 4307 Z Z Z Z Y N N/A

Conc. units:

Sample Identification Associated Samples: moal/ <u>کو</u>() 100 TDO 3010-BLK 0.480 Blank ID ४.० Tectra hydro yurom Methylene chibilde Compound S) Acetone

Blank analysis date: Conc. units:

Associated Samples:

Compound	Blank ID	Sample Identification
Methylene chioride		
Acetone		
CRal.		

All results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were also qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

LDC #: 16129Cl SDG #: 180289S

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates

Page: Reviewer: 2nd Reviewer:_

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

YN N/A

Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.

A/N/N/ N/N/

Was a MS/MSD analyzed every 20 samples of each matrix? Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

*	Date	MS/MSD ID	Compound	MS %R (Limits)		MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		TMW - 06-	S)	ſ	16 (65-125)	()	March	JAMO OM
		NG032707_006)	(()	()		
)	^	()	()		
)	(()	()		
)	^	())		
)	_	()	()		
				•	_	()	()		
)	^	()	()		
)	^	()	()		
)	^	()	()		
)	^	()	()		
)	(()	()		
)	(()	()		
)	(()	()		
)	^	())		
)	<u> </u>	()	()		
)	^	()	()		
)	(()	()		
		Compound	pun	ac	Limit	Limits (Soil)	RPD (Soii)	QC Limits (Water)	RPD (Water)
	Ξ.	1,1-Dichloroethene			59-172%	2%	≥ 22%	61-145%	<u><</u> 14%
	S.	Trichloroethene			62-137%	%2	< 24%	71-120%	≤ 14%
	٧.	Benzene			66-142%	.5%	≥ 21%	76-127%	≤ 11%
	CC.	Toluene			59-139%	%6	≥ 21%	76-125%	≤ 13%
	DD.	Chlorobenzene			60-133%	3%	≥ 21%	75-130%	≤ 13%

DC #: 16739c)

VALIDATION FINDINGS WORKSHEET Laboratory Control Samples (LCS)

Page: / of / Reviewer: //

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A

Was a LCS required?

Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

													-												ត
Qualifications	1 P dut						\																		
Associated Samples	All + Blowk						->																		
RPD (Limits)	()	()	()	()	()	()	()	()	())	()	()	()	()	()	()	()	()	()	()	()	()	()	()	
LCSD %R (Limits)	(()	()		()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	()	
LCS %R (Limits)	(01-05) 692	(001-04) 182	(561-05) 821	-	144 (45-140)		(0c1-01) 9E1	()	()	()	(()	(()	(()	()	()	()	()	()	()	()	()	
Compound	닠	. W	۶ ۶	7	<u> </u>	88	ХX																		
CS/CSD ID	158-0105001																								
# Date																									

LDC #: 167390| SDG #: T Q C 2 895

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page: 1 of Reviewer: 7

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the

 $RRF = (A_{\nu}(C_{\nu})/(A_{\nu})(C_{\nu})$ average RRF = sum of the RRFs/number of standards %RSD = 100 * (S/X)

A_x = Area of compound,
C_x = Concentration of compound,
S = Stendard deviation of the RRFs
X = Mean of the RRFs

 $A_{\rm k}$ = Area of associated internal standard $C_{\rm k}$ = Concentration of internal standard

# Standard ID Date Compound (Reference Internal Standard) (15 std)	·								,	
Standard ID Date Compound (Reference internal Standard) (25 std) I.A. L. 2/28/07 Methylene chloride (1st internal standard) 0. 452 Trichlorethene (2nd internal standard) 0. 334 Trichlorethene (3rd internal standard) 1. 639 Trichlorethene (3rd internal standard) 1. 639 Trichlorethene (2nd internal standard) 1. 639 Trichlorethene (2nd internal standard) 1. 639 Trichlorethene (3rd internal standard) Trichlorethene (3rd internal standard) Trichlorethene (2nd internal standard)					Reported	Recalculated	Reported	Receivmend		
Methylene chloride (1st internal standard) (1.25 std) Trichlorethene (2nd internal standard) (2.35 to 1.36 to		Standard ID	Calibration Date	Compound (Reference Internal Standard)	RRF		Average RRF	Average BBF	Teported :	Recalculated
Trichlorethene (2nd internal standard) 0. 452 0. Trichlorethene (2nd internal standard) 0. 33C 0. Teluene (3rd internal standard) 1.629 1. Trichlorethene (2nd internal standard) 1.639 Trichlorethene (2nd internal standard) Methylene chloride (1st internal standard) Toluene (3rd internal standard) Methylene chloride (1st internal standard) Toluene (3rd internal standard) Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard)		4	7018/12	California California	(2 std)	H	(initial)	(initial)	%RSD	%RSD
Trichlorethene (2nd Internal standard) Toluene (3rd Internal standard) Trichlorethene (2nd Internal standard)	T	7	1210212	Methylene chloride (1st internal standard)	0.452	0.457	0.4711), El. 6		9
Trichlorethene (3rd internal standard) Trichlorethene (2rd internal standard) Trichlorethene (2rd internal standard) Methylene chloride (1st internal standard) Trichlorethene (3rd internal standard) Trichlorethene (3rd internal standard) Trichlorethene (3rd internal standard) Trichlorethene (2rd internal standard) Trichlorethene (2rd internal standard)	Т			ndar	٥. ۶،۲	226	2 2 2 3	1 6 6	21.12	1-10
Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard) Trichlorethene (3nd internal standard) Methylene chloride (1st internal standard) Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard)	-			Toluene (3rd internal standard)			0.551	0.73	5.92	5.97
Methylede chloride Apt Internal standard) 1-639 Trichlorethene (2nd internal standard) Toluene (3rd internal standard) Methylene chloride (1st internal standard) Trichlorethene (2nd internal standard) Methylene chloride (1st internal standard) Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard) Trichlorethene (2nd internal standard)	. ,			the Down	1.265	1-365	1.314	1:314	10.24	10.22
Trichiorethene (2nd internal standard) Toluene (3rd internal standard) Methylene chloride (1st internal standard) Trichiorethene (2nd internal standard) Toluene (3rd internal standard) Methylene chloride (1st internal standard) Trichiorethene (2nd internal standard)	1			Methylede chloride (16t internal standard)	1.639	1.139	1622	1 1 2 2	,	
Toluene (3rd internal standard) Methylene chloride (1st internal standard) Toluene (3rd internal standard) Methylene chloride (1st internal standard)	7			Trichiorethene (2nd internal standard)			() 9 -	C49.1	۲۵. ۲	4.97
Methylene chloride (1st internal stan Trichlorethene (2nd internal standar Toluene (3rd internal standard) Methylene chloride (1st internal standard)				Toluene (3rd internet stendard)						
Methylene chloride (1st internal star Trichlorethene (2nd internal standard) Methylene chloride (1st internal star Trichlorethene (2nd internal stardard)									-	
-	e			Methylene chloride (1st internal standard)						
-	<u> </u>			Trichiorethene (2nd internal standard)						
-	+			Toluene (3rd internal standard)						
Trichlorethene (2nd internal standard)	4			Methylene chloride (1st internal standard)	·					£
	Т	•		Trichlorethene (2nd Internal standard)						
Toluene (3rd internal standard)				Toluene (3rd internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the

INICLC.1SB

DC #: 16739Cl SDG #: T QC1895

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: of Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF RRF = $(A_{\omega})(C_{\omega})/(A_{\omega})(C_{\omega})$

Where: ave. RRF = Initial calibration average RRF RRF = confinuing calibration RRF

 A_{κ} = Area of compound, A_{κ} = Area of associated internal standard G_{κ} = Concentration of internal standard

_								
					Reported	Recalculated	Reported	Recalculated
*	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	RRF (CC)	RRF (CC)	۵%	Q%
-	des 6:46	1/2/07	Chlo ro for m. Methylene chloride (1st internal standard)	0.756	0.872	9.×72	الا :۷	15.3
			Trichtorethene (2nd internal etendard)					
			Toluene (3rd internal standard)					
N	ew 9:13	4/3/01	Methylene chloride (1st internal standard)	0.474	<u>አ</u> ሳት ዕ	O. 41. X	۲,	1.2
		· •	Trichlorethene (2nd internal standard)	0.33	12,40	10,00	7 0	7 - 1
		٠	1、2、0 CB Telefone (3rd Internet standard)	1.314	ት ሀገ	1.102		> -
က			- Wethylsop chloride (1st Internal standard)		7 7	727	0 0	0.3
			Trichlorethene (2nd internal standard)	C19.	3	9	5.0	کرکا
			Toluene (3rd Internal standard)		:	:.		
4	-		Methylene chloride (1st internal standard)					
			Trichlorethene (2nd Internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10,0% of the recalculated results,

Toluene (3rd Internal standard)

CONCLC, 15B

LDC #: 167390| SDG #: I QC2895

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page:_	/_of <u>/</u>
Reviewer:_	
2nd reviewer:_	N/

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The pe	ercent recoveries	(%R)	of surrogates were rec	alculated for the compounds	identified below using	the following calculation
--------	-------------------	------	------------------------	-----------------------------	------------------------	---------------------------

% Recovery: SF/SS * 100

Where: SF = Surrogate Found

SS = Surrogate Spiked

Sample ID:

101

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	V. U	21.17	109	109	O
Bromofluorobenzene		25.13	10.3	103	\
1,2-Dichloroethane-d4					
Dibromofiuoromethane	· · ·	27.64	111	111	

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	÷. '				
Bromofluorobenzene	·		٠.		
1,2-Dichloroethane-d4	•	·			
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4				·	
Dibromofluoromethane					

Sample ID:_

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					
Bromofluorobenzene					
1,2-Dichloroethane-d4			·		**.
Dibromofluoromethane			·		

Sample ID:

·	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8		·			
Bromofluorobenzene					
1,2-Dichloroethane-d4					
Dibromofluoromethane					

LDC #: 16739C| SDG #: I Be 2895

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified

% Recovery = 100 * (SSC - SC)/SA

RPD = 1 MSC - MSDC 1 * 2/(MSC + MSDC)

Where: SSC = Spiked sample concentration SA = Spike added

MSC = Matrix spike percent recovery

tration SC = Sample concentration

MSDC = Matrix splke duplicate percent recovery

MS/MSD sample; TMW-06-WGO32707 -0001 MS 1)

•	Spike Added	Sample	Spiked Sample	e d	Matrix Spike	pike	Matrix Spike Duplicate	Duplicate	SW	Ma/MeD	
Compound	(ug/L)	(mg/1)	Concentration (No.)		Percent Recovery	COVerv	Developed Developed				
	9		•				T NICOLO I	SCOVERY		RPD	
	CINIO MINIO		MS	MSD	Reported	Recalc.	Reported	Becalo	Bonortod		
1,1-Dichloroethene	1x.0 1x.0	۲,	7 7	777	,	,			Dellodeu	necalculated	
Trichloroethene			7	T	\$2	3	9	2			
		041	158	144	7	12	-	=			
Benzene			Γ	T		T	3	٩	-	5	
101:000		CV	2.4	26.0	20	100	101	104	4	4	
al lanio		ΝD	26.5	2,7	9	101	707	7	-		
Chlorobenzene		C	Γ			2	2	3	-		
	*	7.7	7 472	7.1.7	710		100	601		<u> </u>	

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within

I & LZ 895 LDC #: 16739121 SDG #:

Laboratory Control Sample Results Verification VALIDATION FINDINGS WORKSHEET

Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample and laboratory control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA

Where: SSC = Spiked sample concentration SA = Spike added

LCS = Laboraotry control sample percent recovery

7 DO3010 - B3

LCS ID:

RPD = ILCS - LCSD I * 2/(LCS + LCSD)

LCSD = Laboratory control sample duplicate percent recovery

I CSD	Percent Recovery	Re					F 5	/			
108	Percent Recovery	irted Recalc		1 99	(0)	(0)	201 5				
		D Re	NA 97	ماط	101	101	501				
Spiked Sampl	Concentration (ロタル)	1 831		24.8	26.30	16.3	7.27				
pike	Added (vg し)	l GSD	NA				>				
<i>v</i> ,	∀	108	3K.C	_			->				
	Compound		1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chlorobenzene				

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LCSCLC.1SB

DC#:	167390
	IQC2895

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page:_	
Reviewer:_	B
2nd reviewer:	

METHOD: GC/N	MS VOA	(EPA SV	V 846 I	Method	8260B)
--------------	--------	---------	---------	--------	--------

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Conce	ntratio	$m = \frac{(A_{\bullet})(L)(DF)}{(A_{\bullet})(RRF)(V_{\bullet})(\%S)}$	Example:
A _x	'=	Area of the characteristic ion (EICP) for the compound to be measured	Sample I.D:
A _k	=	Area of the characteristic ion (EICP) for the specific internal standard	
l _s	=	Amount of internal standard added in nanograms (ng)	Gonc. = (1624) (25) (10)
RRF	Ė	Relative response factor of the calibration standard.	545 33C 0.423
V,	= .	Volume or weight of sample pruged in milliliters (ml) or grams (g).	_ 911 668
Df	=	Dilution factor.	10.5 ng 1,
% S	=	Percent solids, applicable to soils and solid matrices	0 1

ir.	0 10		Reported Concentration	Calculated Concentration	
#	Sample ID	Compound	<u> </u>	()	Qualification
					1
	,			,	
•					
-				<u> </u>	
				· · · · · · · · · · · · · · · · · · ·	
		·		· · · · · · · · · · · · · · · · · · ·	
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Boeing Realty Corp., Bldg C-6 Torrance Data Validation Reports LDC# 16739

Maganese



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 14, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Manganese

Validation Level:

Tier 1

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC1612

Sample Identification

MWB013_WG031407_0001 MWC021_WG031407_0001 MWB013_WG031407_0001MS MWB013_WG031407_0001MSD

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Manganese.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Samples indicated by a double asterisk on the front cover underwent a Tier 2 review. A Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 1 and 2 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

Calibration data were not reviewed for Tier 1.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

ICP interference check sample analysis data were not reviewed for Tier 1.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

Raw data were not reviewed for this SDG.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Manganese - Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Manganese - Laboratory Blank Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

ANALYTICAL TESTING CORPORATION

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TAIT Environmental/Boeing

701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727-01

Report Number: IQC1612

Sampled: 03/14/07

Received: 03/14/07

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1612-05 (MWB013_W	VG031407_0001 - Wa	ter)							
Reporting Units: mg/l Manganese	EPA 6010B-Diss	7C14164	N/A	0.020	ND	1	03/14/07	03/15/07	
Sample ID: IQC1612-10 (MWC021_V	VG031407_0001 - Wa	ter)							
Reporting Units: mg/l Manganese	EPA 6010B-Diss	7C14164	N/A	0.020	0.030	1	03/14/07	03/15/07	
Sample ID: IQC1612-11 (TMW_10_V	/G031407_0001 - Wat	ter)—							
Reporting Units: mg/l Manganese	EPA 6010B-Diss	-7C14164 -	N/A	0:020	ND ND	1 -	-03/14/07	-03/15/07	
Sample ID: IQC1612-12 (TMW_15_W	/ C031407_0001 - Wa t	rer) `							
Reporting Units: mg/l Manganese	EPA 6010B-Diss	7C14164	N/A	0.020	ND		03/14/07	03/15/07	

SDG#	: 16739A4 V t: IQC1612 atory: <u>Test America</u>	ALIC	DATIO		PLETENE gion 1 -		WORKSH I 1	EET	Page: of Reviewer: 2nd Reviewer:
The sa	OD: Manganese (EPA SW amples listed below were revion findings worksheets.				ollowing va	lidati	on areas. Val	lidation finding	
	Validation Are	a					C	omments	
I.	Technical holding times			A	Sampling da	ites:	2114107		
Н.	Calibration			N			,		
III.	Blanks			4	PB				
IV.	ICP Interference Check Sample	(ICS)	Analysis	N					
V.	Matrix Spike Analysis			A	2.4	vs 1	mso		
VI.	Duplicate Sample Analysis			N	3	1			
VII.	Laboratory Control Samples (LC	S)		A	les				
VIII.	Internal Standard (ICP-MS)			N	zhit	util	Livi		
IX.	Furnace Atomic Absorption QC			\sim	/		izis		
Χ.	ICP Serial Dilution			N	W.7	sens	rme 1		
XI.	Sample Result Verification			N		(
XII.	Overall Assessment of Data			A					
XIII.	Field Duplicates			N					
XIV.	Field Blanks			ν					
Note:	A = Acceptable N = Not provided/applicable SW = See worksheet		R = Rin	o compound sate eld blank	s detected		D = Duplicate TB = Trip blank EB = Equipme		
Validate	ed Samples:								
1	MWB013_WG031407_0001	11			21			31	
2	MWC021_WG031407_0001	12			22			32	
3	MWB013_WG031407_0001MS	13			23			33	
4	MWB013_WG031407_0001MSD	14			24			34	
5	þr	15			25			35	
6		16			26			36	
7		17			27			37	
8		18			28			38	
9		19			29			39	
10		20			30			40	
Notes									

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 22, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Manganese

Validation Level:

Tier 2

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC2470

Sample Identification

CMW002_WG032207_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Manganese.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standards

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

Raw data were not reviewed for this SDG.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Manganese - Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Manganese - Laboratory Blank Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG



ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727

Report Number: IQC2470

Sampled: 03/22/07

Received: 03/22/07

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2470-08 (MWB003	_WG032207_0001 - Wat	er)							
Reporting Units: mg/l Ma nganese	EPA 6010B-Diss	7C2313 6	-0.0070-	0.020	0.31	1	03/23/07	03/24/07	
Sample ID: 1QC2470-10 (WCC06S	_WG032207_0001 - Wat	er)							
Reporting Units: mg/l Manganese	FPA 6010B-Diss	-7C23136	-0.0070-	0.020	4:5	1-	-03/23/07	-03/24/ 07	
Sample ID: IQC2470-13 (CMW002	_WG032207_0001 - Wat	ter)							
Reporting Units: mg/l Manganese	EPA 6010B-Diss	7C23136	0.0070	0.020	0.15	1	03/23/07	03/24/07	
Sample ID: IQC2470-14 (IRZCMW	/002_WG032207_0001 -	Water)							
Reporting Units: mg/l Manganese	FPA 6010B-Diss	-7C23136	0:0070	0.020	2.8	1	03/23/07	03/24/0 7	

TestAmerica - Irvine, CA Nicholas Marz Project Manager

MUS 1007

SDG#	:16739B4V t:IQC2470 atory:_Test America	/ALII	DATIO		PLETENE egion 1 - 7	SS WORKS F Fier 2	IEET	Date: \(\frac{\frac{1}{\ell}}{\text{Page: \left\[\text{of } \right\]}}\) Reviewer: \(\frac{\kappa}{\delta}\) 2nd Reviewer: \(\frac{\lambda}{\delta}\)
The sa	OD: Manganese (EPA SW amples listed below were re tion findings worksheets.				following val	idation areas. Va	alidation finding	
	Validation Ar	ea					Comments	
	Technical holding times			1	Sampling dat	es: 3/22/07		
II.	Calibration			Å		,		
III.	Blanks			A				
IV.	ICP Interference Check Sample	(ICS)	Analysis	A				
V.	Matrix Spike Analysis			A	10.10~	dret.		
VI.	Duplicate Sample Analysis			\sim		•		
VII.	Laboratory Control Samples (LC	CS)		A	w			
VIII.	Internal Standard (ICP-MS)			K	>NA	Wtilas		
IX.	Furnace Atomic Absorption QC			N)			
X.	ICP Serial Dilution			N	Not pe	formal		
XI.	Sample Result Verification			N	,	1		
XII.	Overall Assessment of Data			A		MILL 0-11		
XIII.	Field Duplicates			N				
XIV.	Field Blanks	***************************************		N				
Note:	A = Acceptable N = Not provided/applicable SW = See worksheet		R = Rin	o compound sate eld blank	ls detected	D = Duplicate TB = Trip blar EB = Equipme	nk	
	d Samples:							
1	CMW002_WG032207_0001	11			21		31	
2	PB	12			22		32	
3		13			23		33	
4		14			24		34	
5		15			25		35	
6		16			26		36	
7		17			27		37	
8		18			28		38	
9		19			29		39	
10		20			30		40	

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 27, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Manganese

Validation Level:

Tier 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC2895

Sample Identification

MWB019_WG032707_0001 MWB019_WG032707_0001MS MWB019_WG032707_0001MSD

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 6010B for Manganese.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blanks are summarized in Section III.

Field duplicates are summarized in Section XIII.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

An initial calibration was performed.

The frequency and analysis criteria of the initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. ICP Interference Check Sample (ICS) Analysis

The frequency of analysis was met.

The criteria for analysis were met.

V. Matrix Spike Analysis

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicate Sample Analysis

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VIII. Internal Standard (ICP-MS)

ICP-MS was not utilized in this SDG.

IX. Furnace Atomic Absorption QC

Graphite furnace atomic absorption was not utilized in this SDG.

X. ICP Serial Dilution

ICP serial dilution was not performed for this SDG.

XI. Sample Result Verification

All sample result verifications were acceptable.

XII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XIII. Field Duplicates

No field duplicates were identified in this SDG.

XIV. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Manganese - Data Qualification Summary - SDG IQC2895

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Manganese - Laboratory Blank Data Qualification Summary - SDG IQC2895

No Sample Data Qualified in this SDG

Test/America

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TAIT Environmental/Boeing

701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-6 Torrance

EM2727

Report Number: IQC2895

Sampled: 03/27/07

Received: 03/27/07

DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC2895-07 (MWB019_W Reporting Units: mg/l	/G032707_0001 - Wa	ter)							
Manganese	EPA 6010B-Diss	7C28102	0.0070	0.020	ND	1	03/28/07	03/29/07	
Sample ID: IQC2895-08 (MWC017_V	/G032707_0001 - Wa	ter)							
Reporting Units: mg/l Manganese	EPA 6010B-Diss	7C28102	0.0070	0.020	0.082	1	03/28/07	03/29/07	
Sample ID: 1QC2895-09 (IRZMW005 Reporting Units; mg/l	WG032707_0001 - V	Vater)							
Manganese Manganese	EPA 6010B-Diss	7C28102	0.0070	0.020	1.6	1 -	03/28/07	03/29/07	

TestAmerica - Irvine, CA Nicholas Marz Project Manager

ht1007

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced. IQC2895 < Page 25 of 76> except in full, without written permission from TestAmerica.

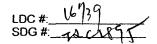
SDG#	:16739C4 V t:IQC2895 atory:_ <u>Test America</u>	VALIDATION COMPLETENESS WORKSHEET EPA Region 1 - Tier 3							Date: \(\frac{1}{\lambda}\right)\) Page: \(\left(\text{of}\)\] Reviewer: \(\frac{1}{\lambda}\)
METH	OD: Manganese (EPA SW	846 N	/lethod 6	8010B)				2	2nd Reviewer: <u>L</u>
	amples listed below were re ion findings worksheets.	viewe	d for ead	ch of the f	following va	alid	ation areas. Validati	ion findings	are noted in attached
	Validation Are	<u>:a</u>					Comr	ments	
I.	Technical holding times			A	Sampling d	ates	s: 3/27/07		
11.	Calibration			A			. /		
111.	Blanks			A					
IV.	ICP Interference Check Sample	(ICS)	Analysis	A					
V.	Matrix Spike Analysis			A	2 249	5/1	MSD		
VI.	Duplicate Sample Analysis			N					
VII.	Laboratory Control Samples (LC	S)		13	Les				
VIII.	Internal Standard (ICP-MS)			μ	16.	+	Wto liget		
IX.	Furnace Atomic Absorption QC			Ρ			0		
X.	ICP Serial Dilution			N	wit	_	perform & I		
XI.	Sample Result Verification			4		· ·			
XII.	Overall Assessment of Data			A					
XIII.	Field Duplicates			Ρ					
XIV.	Field Blanks			μ					
Note:	A = Acceptable N = Not provided/applicable SW = See worksheet		R = Rins	o compound sate eld blank	ds detected		D = Duplicate TB = Trip blank EB = Equipment bla	ınk	
Validate	d Samples:								•
1 1	MWB019_WG032707_0001	11			21			31	
2 1	MWB019_WG032707_0001MS	12			22	2		32	
3 1	MWB019_WG032707_0001MSD	13			23	3		33	
4	PB	14			24			34	
		15			25	,		35	
5 6 7		16			26			36	
7		17			27			37	
8		18			28			38	
9		19			29			39	
10		20			30			40	
Notes:									

VALIDATION FINDINGS CHECKLIST

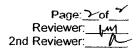
Page:_	of~
Reviewer:_	144
2nd Reviewer:	1/

Method: Metals (EPA SW 846 Method 6010/7000/6020)

Validation Area	Yes	No	NA	Findings/Comments
Pacifical Southoutiness:				
All technical holding times were met.	1			
Cooler temperature criteria was met.	V			
legalogio esperante de la companya				
Were all Instruments calibrated daily, each set-up time?	/			
Were the proper number of standards used?	1	<u> </u>	<u> </u>	
Were all initial and continuing calibration verification %Rs within the 90-110% (80- 120% for mercury and 85-115% for cyanide) QC limits?	/			
Were all initial calibration correlation coefficients ≥ 0.995? (Level IV only)	/		prior attends to t	
III Blanks				建工作的基础的基础。
Was a method blank associated with every sample in this SDG?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		/		
Wile file ference Check Sample				
Were ICP interference check samples performed daily?	1			
Were the AB solution percent recoveries (%R) with the 80-120% QC limits?	/	runci production	voi žnašna	MOSCO DE COMPANSO DE COMPA
IX-Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	_			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	/			
Were the MS/MSD or duplicate relative percent differences (RPD) \leq 20% for waters and \leq 35% for soil samples? A control limit of +/- RL(+/-2X RL for soil) was used for samples that were \leq 5X the RL, including when only one of the duplicate sample values were \leq 5X the RL.	1			
V. Laboratory control samples		(11 0 5.7)		
Was an LCS anaylzed for this SDG?	/			
Was an LCS analyzed per extraction batch?	1			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% QC limits for water samples and laboratory established QC limits for soils?	1			
VI Furnace Atomic Absorption QC				
If MSA was performed, was the correlation coefficients > 0.995?				
Do all applicable analysies have duplicate injections? (Level IV only)			4	
For sample concentrations > RL, are applicable duplicate injection RSD values < 20%? (Level IV only)			/	
Were analytical spike recoveries within the 85-115% OC limits?				



VALIDATION FINDINGS CHECKLIST



Validation Area	Yes	No	NA	Findings/Comments
NU-ICE-Senal Division			3	The second se
Was an ICP serial dilution analyzed if analyte concentrations were > 50X the IDL?			N	
Were all percent differences (%Ds) < 10%?				
Was there evidence of negative interference? If yes, professional judgement will be used to qualify the data.				
Williamenal Standards (ERASW 248 Method Buzo)				
Were all the percent recoveries (%R) within the 30-120% of the intensity of the internal standard in the associated initial calibration?			/	
If the %Rs were outside the criteria, was a reanalysis performed?		and the		
DA Regional equality assurance and Lausiny Coutrol 2 (4) 1881 1882 278 378 277				
Were performance evaluation (PE) samples performed?				
Were the performance evaluation (PE) samples within the acceptance limits?	-05024062			
W Sample Resnut Ventication let 1887 at 1887 a				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?				
AUD PROBLEM OF THE RESERVE OF THE PROBLEM OF THE PR				
Overall assessment of data was found to be acceptable.	/			
XI Septimoral services and the service services and the services and the services are servi				
Field duplicate pairs were identified in this SDG.		/		
Target analytes were detected in the field duplicates.			/	
XIII. Field blanks				和
Field blanks were identified in this SDG.				
Target analytes were detected in the field blanks.		I		

SDG #: [6/39 C4]

Initial and Continuing Calibration Calculation Verification VALIDATION FINDINGS WORKSHEET

Page: tof Reviewer:

METHOD: Trace Metals (EPA SW 846 Method 6010/7000)

An initial and continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found × 100 True

Where. Found = concentration (in ug/L) of each analyte measured in the analysis of the ICV or CCV solution.

True = concentration (in ug/L) of each analyte in the ICV or CCV source.

					Recalculated	Reported	
Standard ID	Type of Analysis	Element	Found (ug/L)	True (ug/L)	8 8	**	Acceptable (Y/N)
MI	ICP (Initial calibration)	7	1921	λ	96	J.R.	>
	GFAA (Initial calibration)						
	CVAA (Initial calibration)						
cal	ICP (Continuing calibration)	25	<i>{a</i> ∼ <i>)</i>		(0)	7	5
	GFAA (Continuing calibration)						
	CVAA (Continuing calibration)						
	Cyanide (Initial calibration)						
	Cyanide (Continuing calibation)						

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

CALCLC.4SW

100 #: [6731cd 506 #: 100.1810

VALIDATION FINDINGS WORKSHEET **Level IV Recalculation Worksheet**

2nd Reviewer:_

METHOD: Trace Metals (EPA SW 846 Method 6010/7000)

Percent recoveries (%R) for an ICP interference check sample, a laboratory control sample and a matrix spike sample were recaluculated using the following formula:

%R = Found × 100 True

Where, Found = Concentration of each analyte measured in the enalysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result).

True = Concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

 $RPD = \frac{|S-D|}{(S+D)/2} \times 100$

Where, S = Original sample concentration D = Duplicate sample concentration

An ICP serial dilution percent difference (%D) was recalculated using the following formula:

%D = !!-SDR! × 100

Where, 1 = Initial Sample Result (mg/L)
SDR = Serial Dilution Result (mg/L) (Instrument Reading x 5)

					Recalculated	Reported	
Sample ID	Type of Analysis	Element	Found / S / I (units)	True / D / SDR (units)	%R/RPD/%D	%R/RPD/%D	Acceptable (Y/N)
TUMB	ICP interferance check	^M M	5864.9	0.500	٥٦)	NR	>
697	Laboratory control sample	l	(2063	000	9-1	90)	_
٨	Matrix spike		(SSR-SR)	00-1	901	9 0)	
2/3	Duplicate	r	101	1.059	-		*
77	ICP serial dilution						

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10,0% of the recalculated results.

TOTCLC.45W

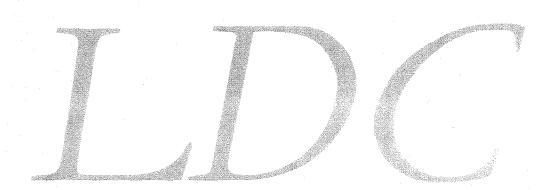
LDC #	<i>t</i> :	VALID	DATION FINDINGS WORKSHE	ET	Page:	01
SDG #	#:	Sa	imple Calculation Verification		Reviewer:	MW
					2nd reviewer:	W
метн	I OD: Tra	ce Metals (EPA SW 846 Method	d 6010/7000)			
Please Y N Y N Y N	N/A N/A	Have results been reported a	ed range of the instruments and within			
Detect	ed analy	te results for		were recalcu	lated and verifie	d using the
followi	ng equa	tion:		,		a doing the
Concern	tration =	(RD)(FV)(Dil) (In. Vol.)(%S)	Recalculation:			
RD	=	Raw data concentration			•	
FV .	=	Final volume (ml)				•
In. Vol.	=	Initial volume (ml) or weight (G)				
Dil	=	Dilution factor				
0/0		Desimal persont colide				

Sample ID	Analyte	Reported Concentration ()	Calculated Concentration ()	Acceptable (Y/N)
			·	
·				·
			٠.	
				
				-

RECALC.4S2

Boeing Realty Corp., Bldg C-6 Torrance Data Validation Reports LDC# 16739

Wet Chemistry



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 14, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Wet Chemistry

Validation Level:

Tier 1

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC1612

Sample Identification

MWB013_WG031407_0001

MWC021_WG031407_0001

MWC021 WG031407 0001MS

MWC021_WG031407_0001MSD

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Chloride, Nitrate, Nitrite, Sulfate, and Orthophosphate, EPA Method 310.1 for Alkalinity, EPA Method 350.3 for Ammonia as Nitrogen, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration data were not reviewed for Tier 1.

b. Calibration Verification

Calibration verification data were not reviewed for Tier 1.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Wet Chemistry - Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG IQC1612

No Sample Data Qualified in this SDG



ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

701 N. Parkcenter Drive

Santa Ana, CA 92705

Project ID: Boeing C-6 Torrance

EM2727-01

Report Number: IQC1612

Sampled: 03/14/07

Received: 03/14/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result		Date Extracted	Date Analyzed	Data Oualifiers
•			Dimi	2				,	
Sample ID: IQC1612-05 (MWB013_WG0	31407_0001 - Wa	iter)							
Reporting Units: mg/l			27/1	2.0	150		02/22/07	02/22/07	
Alkalinity as CaCO3	EPA 310.1	7C23075	N/A	2.0	150	I .	03/23/07	03/23/07	
Ammonia-N	EPA 350.3	7C26085	N/A	0.50	ND	1	03/26/07	03/26/07	
Chloride	EPA 300.0	7C14053	N/A	25	300	50	03/14/07	03/14/07	
Nitrate-NO3	EPA 300.0	7C14053	N/A	25	60	50	03/14/07	03/14/07	
Nitrite-NO2	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Orthophosphate - PO4	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Sulfate	EPA 300.0	7C14053	N/A	25	320	50	03/14/07	03/14/07	
Total Organic Carbon	EPA 415.1	7C20118	N/A	1.0	2.1	1	03/20/07	03/20/07	
Sample ID: IQC1612-10 (MWC021_WG0	31407_0001 - Wa	iter)							
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7C23075	N/A	2.0	160	1	03/23/07	03/23/07	
Ammonia-N	EPA 350.3	7C26085	N/A	0.50	ND	1	03/26/07	03/26/07	
Chloride	EPA 300.0	7C 14053	N/A	25	120	50	03/14/07	03/14/07	
Nitrate-NO3	EPA 300.0	7C14053	N/A	0.50	9.9	1	03/14/07	03/14/07	
Nitrite-NO2	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Orthophosphate - PO4	EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Sulfate	EPA 300.0	7C14053	N/A	0.50	57	1	03/14/07	03/14/07	
Total Organic Carbon	EPA 415.1	7C20118	N/A	1.0	ND	1	03/20/07	03/20/07	
Sample ID: IQC1612-11 (TMW 10 WG0)	314 07-0001 - Wa	ter)							
Reporting Units: mg/l	_								
Alkalinity as CaCO3	EPA 310:1-	7C23075	N/A	2.0	280		03/23/07	03/23/07	
Ammonia-N	EPA 350.3	7C26085	N/A	0.50	ND		03/26/07	03/26/07	
Chloride	EPA 300.0	7C14053	N/A	25	560	50	03/14/07	03/14/07	
Nitrate-NO3	EPA 300.0	_7C14053	N/A	25	61	50	03/14/07	03/14/07	
Nitrite-NO2	-EPA 300.0	7C14053	N/A	0.50	ND	1	03/14/07	03/14/07	
Orthophosphate - PO4	EPA 300.0	7C14053	N/A	0.50	6,4	1	03/14/07	03/14/07	
Sulfate	EPA 300.0	7C14053	N/A	0.50	48	1	03/14/07	03/14/07	
Total Organic Carbon	EPA 415.1	7C20118	N/A	1.0	1.8	1	03/20/07	03/20/07	

TestAmerica - Irvine, CA Nicholas Marz

Project Manager

Loctory

IQC1612 <Page 27 of 51>

LDC SDG Labo		_ VALIDATION COMPLETENESS WORKSHEET EPA Region 1 - Tier 1						Date:/\int Page: of_ Reviewer:/ d Reviewer:/
MET Ortho	HOD: Alkalinity (EPA Methophosphate- (EPA Method	nod 3 300.0	310.1), <i>A</i>), TOC (Ammonia- (EPA Meth	N (EPA Meth nod 415.1)	nod 350.3), Cl	nloride, Nitrate N	, Nitrite-y, Sulfa
	samples listed below were re ation findings worksheets.	viewe	ed for ea	ch of the	following valid	ation areas. Va	lidation findings a	re noted in attach
	Validation Ar	ea				C	omments	
I.	Technical holding times			Δ	Sampling dates	: 31141.7		
Ila.	Initial calibration			·N				
IIb.	Calibration verification			N				
111.	Blanks			A	MB			
IVa	. Matrix Spike/(Matrix Spike) Dup	licates		A		50 Jung.		
IVb	. Laboratory control samples			A	is			
V.	Sample result verification			N				
VI.	Overall assessment of data			A				
VII.	Field duplicates			N				
VIII	Field blanks							
Note:	A = Acceptable N = Not provided/applicable SW = See worksheet		R = Rin	lo compound isate eld blank	ds detected	D = Duplicate TB = Trip blant EB = Equipme		
√alida	ted Samples:							
1	MWB013_WG031407_0001	11			21		31	
2	MWC021_WG031407_0001	12			22		32	
3	MWC021_WG031407_0001MS	13			23	PHONES STORE III SHAR USE OF THE STATE OF	33	
4	MWC021_WG031407_0001MSD	14			24		34	
5	MB	15			25	· · · · · · · · · · · · · · · · · · ·	35	
6		16			26		36	
7		17			27		37	
8		18			28		38	
9		19			29		39	
10		20			30		40	

LDC #:	16739	A6
SDG #:	Cu	cou/

VALIDATION FINDINGS WORKSHEET Sample Specific Analysis Reference

Page:_	
Reviewer:	<u>~</u>
2nd reviewer:	

All circled methods are applicable to each sample.

Sample ID	Parameter
1,2	pH TDS (C) F (NO) (NO) (SO) (PO) (ALL) CN' (NH) TKN TOO CR*+
	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR8+
~3,4	ph tos ci f no, no, so, po, alk cn (NA) tkn (to) cr°+
	PH TDS CI F NO, NO, SO, PO, ALK CN NH, TKN TOC CR°+
	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR8+
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CN' NH3 TKN TOC CR8+
	PH TDS CI F NO, NO, SO, PO, ALK CN NH, TKN TOC CR8+
	ph TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN' NH ₃ TKN TOC CR ⁸⁺
	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR®+
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CNT NH3 TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	PH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	ph TDS CI F NO₃ NO₂ SO₄ PO₄ ALK CN' NH₃ TKN TOC CR®+
	ph TDS CLF NO3 NO2 SO4 PO4 ALK CN' NH3 TKN TOC CR0+
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁸⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁰⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁸⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	pH TDS CLF NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CRO+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	PH TDS CLF NO, NO, SO, PO, ALK CN: NH, TKN TOC CR8+

Comments:	*	

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 22, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Wet Chemistry

Validation Level:

Tier 1 & 2

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC2470

Sample Identification

CMW001_WG032207_0001 CMW002_WG032207_0001** CMW001_WG032207_0001MS CMW001_WG032207_0001MSD

^{**}Indicates sample underwent Tier 2 review

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Chloride, Nitrate, Nitrite, Sulfate, and Orthophosphate, EPA Method 310.1 for Alkalinity, EPA Method 350.3 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent a Tier 2 review. A Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 1 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

Initial calibration data were not reviewed for Tier 1.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

Calibration verification data were not reviewed for Tier 1.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Wet Chemistry - Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG IQC2470

No Sample Data Qualified in this SDG

Test America

ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

701 N. Parkcenter Drive

Project ID: Boeing C-6 Torrance

EM2727

Report Number: IQC2470

Sampled: 03/22/07

Received: 03/22/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
•	7022207 0004 13	<i>-</i>							-
Sample ID: IQC2470-08 (MWB003_WC Reporting Units: mg/l	3032207_0001 - W	aterj							
Alkalinity as CaCO3	EPA 310.1	7D02058	2.0	2.0	340	1	04/02/07	04/02/07	
Ammonia-N	EPA 350.3	7D03070	0.070	0.50	0.089	1	04/03/07	04/03/07	J
Chloride	EPA 300.0	7C23041	5.0	25	460	50	03/23/07	03/24/07	
Nitrate-NO3	EPA 300.0	7C22150	0.25	0.50	8.4	1	03/22/07	03/23/07	
Nitrite-NO2	EPA 300.0	7C22150	3.0	5.0	ND	10	03/22/07	03/23/07	RL1
Orthophosphate - PO4	EPA 300.0	7C22150	0.40	0.50	ND	1	03/22/07	03/23/07	
Sulfate	EPA 300.0	7C22150	0.15	0.50	32	I	03/22/07	03/23/07	
Total Organic Carbon	EPA 415.1	7029166	0.50	1.0	1.6	1	03/29/07	03/29/07	
Sample ID: IQC2470-10 (WCC06S_WC	6032207_0001_W	ater)							
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D02058	2.0	2.0	340	1	04/02/07	04/02/07	
Ammonia-N	EPA 350.3	7D03070	0.070	0.50	0.35	1	04/03/07	04/03/07	J
Chloride	EPA 300.0	7C23041	5.0	25	520	50	03/23/07	03/24/07	
Nitrate-NO3	EPA 300.0	7C22150	0.25	0.50	2.9	I	03/22/07	03/23/07	
Nitrite-NO2	EPA 300.0	7C22150	3.0	5.0	ND	10	03/22/07	03/23/07	RL1
Orthophosphate - PO4	EPA 300.0	7C22150	0.40	0.50	ND	1	03/22/07	03/23/07	
Sulfate	EPA 300.0	7C22150	0.15	0.50	18	I	03/22/07	03/23/07	
Total Organic Carbon	EPA 415.1	7C29166	0.50	1:0	5.2	-1	-03/29/07	-03/29/07	
Sample ID: IQC2470-11 (CMW001_WC	G032207_0001 - W	ater)							
Reporting Units: mg/l	ED 1 05/ 0	- CO - 10 +	0.070	0.10	0.000		00/08/05		_
Sulfide	EPA 376.2	7C27124	0.010	0.10	0.032	1	03/27/07	03/27/07	J
Sample ID: IQC2470-13 (CMW002_WC	G032207_0001 - W	ater)							
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D02058	2.0	2.0	ND	1	04/02/07	04/02/07	
Ammonia-N	EPA 350.3	7D03070	0.070	0.50	0.17	1	04/03/07	04/03/07	J
Chloride	EPA 300.0	7C22150	1.0	5.0	120	10	03/22/07	03/23/07	
Nitrate-NO3	EPA 300.0	7C22150	0.25	0.50	ND	1	03/22/07	03/23/07	
Nitrite-NO2	EPA 300.0	7C22150	3.0	5.0	ND	10	03/22/07	03/23/07	RL1
Orthophosphate - PO4	EPA 300.0	7C22150	0.40	0.50	ND	1	03/22/07	03/23/07	
Sulfate	EPA 300.0	7C22150	1.5	5.0	98	10	03/22/07	03/23/07	*
Sulfide	EPA 376.2	7C27124	0.010	0.10	0.081	I	03/27/07	03/27/07	J
Total Organic Carbon	EPA 415.1	7C29166	0.50	1.0	14	1	03/29/07	03/29/07	

TestAmerica - Irvine, CANicholas Marz
Project Manager

NAC1507

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IQC2470 <Page 52 of 98>

	#:IQC2470 ratory: Test America		E	EPA Re	gion 1 - T		2n	Date: 5/01 Page: 1 of Reviewer: 4
Ortho	HOD: Alkalinity (EPA Metophosphate (EPA Method	300.0), Sullide	(EPA IVIE	einoa 376.2)	, TOC (EPA IV	letnod 415.1)	·
The s	samples listed below were reation findings worksheets.	eview	ed for eac	h of the f	following val	dation areas. \	Validation findings a	re noted in attached
	Validation A	rea					Comments	
· I.	Technical holding times			A	Sampling dat	es: 3/22/01		
ıla.	Initial calibration			A		for Tier I validation	on.	
Ilb.	Calibration verification		-	b	Not reviewed	for Tier I validation	on.	
III.	Blanks			Å				
IVa.	. Matrix Spike/(Matrix Spike) Du	olicates		A	[M5]	pro/ my		
IVb.	Laboratory control samples			A	lis	<u>'</u> 1		
V.	Sample result verification			N				
VI.	Overall assessment of data			<i>h</i>				
VII.	Field duplicates			$\nu_{/}$				
VIII	Field blanks			<i>W</i> _				
Note: Valida	A = Acceptable N = Not provided/applicable SW = See worksheet ted Samples:* Indicates sample ur	nderwei	R = Rinsa FB = Fiel	d blank	s detected	D = Duplica TB = Trip bl EB = Equipr	ank	
	A)				· · · · · · · · · · · · · · · · · · ·			
1	CMW001_WG032207_0001*	11			21		31	
2	CMW002_WG032207_0001 ***	12			22		32	
3	CMW001_WG032207_0001MS	13			23		33	
4	CMW001_WG032207_0001MSD	14			24		34	
5	MB	15			25		35	
6		16			26		36	
7		17			27		37	
8		18			28		38	
9		19			29		39	
10		20			30		40	

LDC #: 16739Bb SDG #: 700 X470

VALIDATION FINDINGS WORKSHEET Sample Specific Analysis Reference

Page:_	
Reviewer:	<u>~</u>
2nd reviewer:	d
-	

All circled methods are applicable to each sample.

Sample ID	Paramete _r
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR®+ (S)
2	PH TDS(G) F (NO) (NO) (SO) (PO) ALEX CN (NE) TKN (TOC CRO+ (S)
	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CRO+
W3,4	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR°+ (5)
	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CRO
	ph tds ci f no₃ no₂ so₄ po₄ alk cn' nh₃ tkn toc cr⁵+
	PH TDS CI F NO, NO, SO, PO, ALK CN NH, TKN TOC CR8+
	PH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁰⁺
	PH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CNT NH3 TKN TOC CR8+
	PH TDS CLF NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR®+
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN' NH ₃ TKN TOC CR ⁶⁺
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CN' NH3 TKN TOC CR®+
	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CRO+
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	ph TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	ph TDS CI F NO, NO, SO, PO, ALK CN NH, TKN TOC CRO
	PH TDS CI F NO, NO, SO, PO, ALK CN NH, TKN TOC CRO
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CLF NO, NO, SO, PO, ALK CN NH, TKN TOC CR®+

Comments:	 	·		

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 27, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Wet Chemistry

Validation Level:

Tier 3

Laboratory:

TestAmerica, Inc.

Sample Delivery Group (SDG): IQC2895

Sample Identification

MWB019_WG032707_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 300.0 for Chloride, Nitrate, Nitrite, Sulfate, and Orthophosphate, EPA Method 310.1 for Alkalinity, EPA Method 350.3 for Ammonia as Nitrogen, EPA Method 376.2 for Sulfide, and EPA Method 415.1 for Total Organic Carbon.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of this method were met.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for this method when applicable.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks with the following exceptions:

Method Blank ID	Analyte	Concentration	Associated Samples
МВ	Ammonia as N	0.0783 mg/L	All samples in SDG IQC2895
ICB/CCB	Ammonia as N Orthophosphate	0.1038 mg/L 0.436 mg/L	All samples in SDG IQC2895

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Analyte	Reported Concentration	Modified Final Concentration		
MWB019_WG032707_0001	Ammonia as N	0.19 mg/L	0.19U mg/L		

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QC limits.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

All sample result verifications were acceptable.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Wet Chemistry - Data Qualification Summary - SDG IQC2895

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG IQC2895

SDG	Sample	Analyte	Modified Final Concentration	A or P
IQC2895	MWB019_WG032707_0001	Ammonia as N	0.19U mg/L	Α

Test/America

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-6 Torrance EM2727

Sampled: 03/27/07

701 N. Parkcenter Drive Santa Ana, CA 92705

Report Number: IQC2895

Received: 03/27/07

Attention: Mehmet Pehlivan

INORGANICS

							_		
A market	3.5-43 3	D . 4 %	MDL	Reporting	Sample		Date	Date	Data Qualifiers
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Quanners
Sample ID: IQC2895-07 (MWB019_WG0	032707_0001 - Wa	ater)							
Reporting Units: mg/l									
Alkalinity as CaCO3	EPA 310.1	7D05119	2.0	2.0	390	1	04/05/07	04/05/07	
Ammonia-N	EPA 350.3	7D09073	0.070	0.50	0.19 U	1	04/09/07	04/09/07	B, J
Chloride	EPA 300.0	7C27042	2.0	10	290	20	03/27/07	03/28/07	
Nitrate-NO3	EPA 300.0	7C27042	5.0	10	110	20	03/27/07	03/28/07	
Nitrite-NO2	EPA 300.0	7C27042	6.0	10	ND	20	03/27/07	03/28/07	RL1
Orthophosphate - PO4	EPA 300.0	7C27042	0.40	0.50	ND	1	03/27/07	03/27/07	
Sulfate	EPA 300.0	7C27042	3.0	10	560	20	03/27/07	03/28/07	
Sulfide	EPA 376.2	7D02095	0.010	0.10	0.026	1	04/02/07	04/02/07	J
Total Organic Carbon	EPA 415.1	7D03118	0.50	1.0	1.5	1	04/03/07	04/03/07	
Sample ID: IQC2895-08 (MWC017_WG0	32707 0001 - Wa	ater)		,					
Reporting Units: mg/l								-/	
Alkalinity as CaCO3	EPA 310.1	7D05119	2.0	2.0	200	1	04/05/07	04/05/07	
Ammonia-N	EPA 350.3	7D09073	0.070	0.50	0.12	1	04/09/07	04/09/07	B, J
Chloride	EPA 300.0	7C27042	1.0	5.0	99	10	03/27/07	03/28/07	
Nitrate-NO3	EPA 300.0	7C27042	0.25	0.50	11	1	03/27/07	03/27/07	
Nitrite-NO2	EPA 300.0	7C27042	0.30	0.50	MD	1	03/27/07	03/27/07	
Orthophosphate - PO4	EPA 300.0	7C27042	0.40	0.50	ND	1	03/27/07	03/27/07	
Sulfate	EPA 300.0	7C27042	0.15	0.50	58	1	03/27/07	03/27/07	
Sulfide	EPA 376.2	7D02095	0.010	0.10	0.023	1	04/02/07	04/02/07	J
Total Organic Carbon	EPA 415.1	7D03118	0.50	1.0	ND	1	04/03/07	04/03/07	
Sample ID: IQC2895-09 (IRZMW005_W	G032707_0001 - y	Vater)							•
Reporting Units: mg/I									
Alkalinity as CaCO3	EPA 310.1	7D05119	2.0	2.0	360	1	04/05/07	04/05/07	
Ammonia-N	EPA 350.3	7D09073	0.070	0.50	3.8	1	04/09/07	04/09/07	
Chloride	EPA 300.0	7C27042	2.0	10	290	20	03/27/07	03/28/07	
Nitrate-NO3	EPA 300.0	7C27042	0.25	0.50	1.5	1	03/27/07	03/27/07	
Nitrite-NO2	EPA 300.0	7C27042	0.30	0.50	ND	1	03/27/07	03/27/07	
Orthophosphate - PO4	EPA 300.0	7C27042	0.40	0.50	ND	1	03/27/07	03/27/07	
Sulfate	EPA 300.0	7C27042	0.15	0.50	30	1	03/27/07	03/27/07	
Sulfide	EPA 376.2	7D02095	0.20	2.0	4.1	20	04/02/07	04/02/07	
Total Organic Carbon	EPA 415.1	7D03118	0.50	1.0	3.2	1	04/03/07	04 /03/ 07	

TestAmerica - Irvine, CA Nicholas Marz Project Manager

1007007

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LDC #: 16739C6 VALIDATION COMPLETENESS WORKS SDG #: IQC2895 EPARegion 1 - Tier 3 Laboratory: Test America							SHEET	2r		
The s	HOD: Alkalinity (EPA Mophosphate) (EPA Methosamples listed below were ation findings worksheets.									
	Validation	Area					Commen	ts		
ı.	Technical holding times			A	Sampling dates	s: 3/27/a	∍)			
IIa.	Initial calibration			A	Sec. 1				No. of the contract of the con	
IIb.	Calibration verification			H						
III.	Blanks			· 5W						
lVa.	Matrix Spike/(Matrix Spike) Duplicates			. A	· No- O	1. et	ms/ms	/ my	9	
IVb.				4	Les		, /	l		
V.	Sample result verification			A						
VI.	Overall assessment of data									
VII.	Field duplicates			2						
VIII				N						
Note: Valida	A = Acceptable N = Not provided/applicable SW = See worksheet ted Samples:		R = Rins	o compound sate eld blank	s detected	D = Duplic TB = Trip EB = Equi			· · · · · · · · · · · · · · · · · · ·	 1
1	MWB019_WG032707_0001	11			21			31		
2	MB	12			22			32		
3		13			23			33		
4		14			24			34		
5		15	•		25			35	"	
6		16			26			36		
7		17			27			37		
8		18			28			38		
9		19			29			39		

30

Notes:_

LDC #:	1693966
SDG #:	ger com

VALIDATION FINDINGS CHECKLIST

Page: of Reviewer: NY
2nd Reviewer: N

Method:Inorganics (EPA Method See Coyu)

Metriod: morganics (EFA Metriod) 20 (4) 5	T	T	<u> </u>	
Validation Area	Yes	No	NA	Findings/Comments
Creatical control times and the state of the				
All technical holding times were met.				
Coolcr temperature criteria was met.	L	<u> </u>		
La Marion				
Were all instruments calibrated daily, each set-up time?	1			
Were the proper number of standards used?	1			
Were all initial calibration correlation coefficients ≥ 0.995?	1			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	/			
Were titrant checks performed as required? (Level IV only)				
Were balance checks performed as required? (Level IV only)			_1	
flusiance at the second				
Was a method blank associated with every sample in this SDG?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
tV Matrix spike/Matrix spike/tiplicate/sand/Duplicates/kin/spike/tiplica				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.		1		(hu elout)
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL.				
v. Eaboratory Expirited Samples with				
Was an LCS anaylzed for this SDG?				
Was an LCS analyzed per extraction batch?	4		\perp	
Were the LCS percent recoverles (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?				
VI. Regional Quality Assurance and Quality Control		:1121		
Were performance evaluation (PE) samples performed?			_	
Were the performance evaluation (PE) samples within the acceptance limits?			1	

LDC #: (6739 C/S SDG #: Cee www

VALIDATION FINDINGS CHECKLIST

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Reviewer:	My
2nd Reviewer:	1

Validation Area	Yes	No	NA	Findings/Comments
vii. Sample Gasub Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	/			
All approves egamentorida de la companya della companya della companya della companya de la companya de la companya della comp				
Overall assessment of data was found to be acceptable.				
Karendonucaes 2002 Cut 100 Cut				
Field duplicate pairs were identified in this SDG.		-	-	
Target analytes were detected in the field duplicates.			V	,
Amountaines (1984) Amountaines (1984)				的过去式和第二人
Field blanks were identified in this SDG.		V		/
Target analytes were detected in the field blanks.				

LDC #: 6739 Cb SDG #: 500 cm

VALIDATION FINDINGS WORKSHEET Sample Specific Analysis Reference

Page:_	of	
Reviewer:_	wy	
2nd reviewer:_	a	

All circled methods are applicable to each sample.

<u> </u>	
Sample ID	Parameter Parameter
7	PH TDS (C) F NO, NO, (SO, PO, AUX CN NH) TKN TOO CR** 5
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	PH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR8+
	PH TDS CI F NO, NO, SO, PO, ALK CN NH, TKN TOC CR°+
	PH TDS CI F NO3 NO2 SO4 PO4 ALK CN' NH3 TKN TOC CR6+
	pH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR®+
	ph tds ci f no, no, so, po, alk cn nh, tkn toc cr. th
	pH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR°+
	ph tds cif no, no, so, po, alk cn nh, tkn toc cr*
	pH TDS CI F NO, NO, SO, PO, ALK CN' NH, TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CNT NH3 TKN TOC CR®+
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN' NH ₃ TKN TOC CR ⁶⁺
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN NH3 TKN TOC CR8+
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CN' NH3 TKN TOC CR8+
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN' NH ₃ TKN TOC CR ⁶⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁸⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁸⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁶⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁸⁺
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁵⁺
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CNT NH3 TKN TOC CR8+
	pH TDS CI F NO3 NO2 SO4 PO4 ALK CNT NH3 TKN TOC CRO+
	pH TDS CI F NO ₃ NO ₂ SO ₄ PO ₄ ALK CN NH ₃ TKN TOC CR ⁸⁺
	pH TDS CL F NO, NO, SO, PO, ALK CN: NH, TKN TOC CR6+

Comments:	· **

SDG #: 16739cb

METHOD: Inorganics, Method _

VALIDATION FINDINGS WORKSHEET

Page:

2nd Reviewer: Reviewer:_

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A. Were all samples associated with a given method blank?

Y N N/A. Were any inorganic contaminants detected above the reporting limit in the method blanks? If yes, please see qualifications below.

6	—					 	 		 		 	 	
										,			
	Sample Identification												
	nple Ic												
M	Sar												
Associated Samples:													
Asso			6,19	1									
	Blank Action Limit		6,519	2.18									
71	Maximum		88010	0,434									
Conc. units: Mg/	Blank ID	<u>ح</u>	68400										
Conc. units	Analyte		M. M		_								

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT: All contaminants within five times the methoc blank concentration were qualified as not detected, "U".

BLANKS.6

|-|-|-|-SDG #:

VALIDATION FINDINGS WORKSHEET Level IV Recalculation Worksheet

2nd Reviewer: Page: Reviewer:_

METHOD: Inorganics, Method_

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

Where. %R = Found × 100

Found = True =

concentration of each analyte <u>measured</u> in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result). SR (sample result). concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

RPD = $\frac{1.S - D!}{(S + D)/2} \times 100$ Where,

∥ ∥ ഗ ロ

Original sample concentration Duplicate sample concentration

					Recalculated	Reported	
Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	%R / RPD	%R / RPD	Acceptable (Y/N)
	Laboratory control sample						-
27		had	4.67	2007	43	43	<u> </u>
1827	Matrix spike sample		(SSR-SR)				
2 Contract		MA	ダイ	2~6 2	&c)	301	
	Duplicate sample	,					>
Therapped T	1	27	£.&	* 8°	Q	0	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.6

LDC #: [673] Cb SDG #: \sqrt{cc}

Validatin Findings Worksheet Initial and Continuing Calibration Calculation Verification

Page: of Reviewer: Cand Reviewer: A

Method: Inorganics, Method

was recalculated.Calibration date: 3/12/<7 The correlation coefficient (r) for the calibration of

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found X 100

Where, F

Found = concentration of each analyte measured in the analysis of the ICV or CCV solution

True = concentration of each analyte in the ICV or CCV source

					Recalculated	Reported	Acceptable
Type of analysis	Analyte	Standard	conc. Mg/L	Area	r or r²	r or r²	(Y/N)
Initial calibration		s1	0	7197.84			
Calibration verification	ō	s2	0.2	21609.41	0.999986	0.999986	
		s3	0.5	57145.97			>
		s4	5	589558.07			
		s5	10	1264022.24			
		se	20	2754745.98			
		s7	30	4466513.23			
\mathcal{LL}^{J} Calibration verification	حس/	0)	fr's)		(6)	WR_	h
$\mathcal{C}_{\mathcal{U}}$ Calibration verification	1-(A)	<i>o</i> ~	~8~)		200		
\mathcal{C}	5	0,342	6-347		(0)		

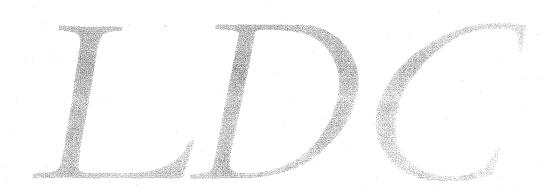
Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

	•	VALIDATION FINDINGS WO Sample Calculation Verif	PRKSHEET ication	Page Reviewer 2nd reviewer	:(of :M1 ::A
AN N	N/A Have results N/A Are results w	ow for all questions answered "N". Not app been reported and calculated correctly? ithin the calibrated range of the instrumen tion limits below the CRQL?		re identified as "i	N/A*.
Comp	oound (analyte) results f culated and verified usir	or ng the following equation:	repor	rted with a positiv	e detect were
	ntration = To CZ Area -	Recalculation: $\frac{-96,918}{2,14}$	554-96. 312 x	918 =	1.464 mg/
#	Sample ID	Analyte	Reported Concentration	Calculated Concentration	Acceptable (Y/N)
1		Alk	390	39~	4
		Mts-N	0.19	0,19	
		los	290	40	
		lo ₃	110	110	
<u> </u>		5ο φ 5ο φ	160	560	
-			0.026	0.00	
-		Toz	١٠٥	1~3	
-					
<u> </u>					
-					
-					
-					1
				1	1

Note:	

Boeing Realty Corp., Bldg C-6 Torrance Data Validation Reports LDC# 16739

Dissolved Gases



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 14, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Dissolved Gases

Validation Level:

Tier 1

Laboratory:

TestAmerica/Air Technology Laboratories, Inc.

Sample Delivery Group (SDG): IQC1612/A7031508

Sample Identification

MWB013_WG031407_0001 MWC021_WG031407_0001

Introduction

This data review covers 2 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method RSK-175 for Dissolved Gases.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration data were not reviewed for Tier 1.

b. Calibration Verification

Calibration verification data were not reviewed for Tier 1.

III. Blanks

Method blanks were performed at the required frequency. No dissolved gas contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Not required by the method.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were analyzed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Dissolved Gases - Data Qualification Summary - SDG IQC1612/A7031508

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Dissolved Gases - Laboratory Blank Data Qualification Summary - SDG IQC1612/A7031508

No Sample Data Qualified in this SDG

Client:

TestAmerica .

Attn:

Nicholas Marz

Client's Project: Date Received: IQC1612 3/15/2007

Matrix: Water Units: ug/L

Dissolved Gases by EPA Procedure RSKSOP-175								 		
		MWBC	13	MWC	<u> </u>	6031	407-0	001		
I	ab No.:	A 703	1508-01	A703	1508-02	A-703	1508-03 -	A703	1508-04	
Client Sam	ple I.D.:	IQC	1612-05	IQC	1612-10	IQC	1612-11	IQC	1612/12	
Date Sa	ampled:	3/1	4/2007	3/1	4/2007	3/1-	4/2007	3/1	4/2007	
Date Ar	alyzed:	3/2	0/2007	3/2	0/2007	3/2	0/2007	3/2	0/2007	
Analyst	Initials:		DT		DT .		DT		DT	
Da	Data File:		nar018	201	mar019	201	nar020	201	nar021	
QC	Batch:	0703	20GC8A1	0703	20GC8A1	07032	OGC8AI	0703	20GC8A1	
Dilution	Factor:		1.0	1.0		1.0		1.0		
ANALYTE	PQL	RL	Results	RL	Results	RL	Results	RL	Results	
Methane	1.0	1.0	2.3	1.0	67	1.0	/13	1.0	12	
Ethane	2.0	2.0	ND	2.0	ND	2.0	ND	2.0	ND	
Ethylene	3.0	3.0	ND	3.0	ND	3.0/	ND	3.0	ND	
Carbon Dioxide	200	200	8,500	200	13,000	200	53,000	200	28,000	
Nitrogen	1,500	1,500	94,000	1,500	94,000	1,500	-90,000	1,500	91,000	

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By

lark J. Johnson

Operations Manager

Date: 3-2707

Page 2 of 3

A7031404

The cover letter is an integral part of this analytical report.

1451007

AIrTECHNOLOGY Laboratories, Inc.

SDG # Labora	#:16739A51 #:IQC1612/A7031508 atory: Del Mar Analytical/ Test Arvenzon IOD: GC Dissolved Gase	Air Te	echnology l	Laboratory	Tier 1	ESS	WORKSHEET	2nd	Date: 5 //c Page: _/of _/ Reviewer:/ Reviewer:/
	amples listed below were tion findings worksheets.		wed for ea	ich of the fo	ollowing v	alidat	tion areas. Validation	findings ar	e noted in attached
ļ	Validation	<u>Area</u>		<u> </u>			Comme	<u>nts</u>	
l.	Technical holding times			<u>A</u>	Sampling	dates:	3/14/07		
lla.	Initial calibration			N	-		· ,		
Ilb.	Calibration verification		·	N .					
111.	Blanks			 	<u> </u>		•		
IVa.	Surrogate recovery			N	not	(4	specific d		
IVb.	Matrix spike/Matrix spike dup	plicate	<u>s</u>	N	cher	<u> </u>	Specific d		
IVc.	Laboratory control samples			<u> </u>	200	10	1 V		
V	Target compound identificati		N						
VI.	Compound Quantitation and	Compound Quantitation and CRQLs							
VII.	System Performance			N ,					
VIII.	Overall assessment of data			4					
IX.	Field duplicates			N					
X.	Field blanks			M					
Note: Validate	A = Acceptable N = Not provided/applicable SW = See worksheet ed Samples:		R = Rin	lo compounds nsate ield blank	s detected		D = Duplicate TB = Trip blank EB = Equipment blank		
1 A T	MWB013 WG031407 0001	11	W = 3	3/20/07	21	Ī		31	
+	MWC021_WG031407_0001	12	110	100	22	+		32	
3	1919 4 0 0 0 2 1 2 4 4 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	13			23			33	
4		14			24			34	
5 6 7 8 9		15			25			35	
6		16			26			36	
7		17			27			37	
8		18			28			38	
9		19			29			39	

Notes:			
			_

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Laboratory Data Consultants, Inc. **Data Validation Report**

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 22, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Dissolved Gases

Validation Level:

Tier 2

Laboratory:

TestAmerica/Air Technology Laboratory, Inc.

Sample Delivery Group (SDG): IQC2470/A7032601

Sample Identification

CMW002_WG032207_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method RSK-175 for Dissolved Gases.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 25.0% QC limits.

III. Blanks

Method blanks were performed at the required frequency. No dissolved gas contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Not required by the method.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were analyzed at the required frequency. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

Raw data were not reviewed for this SDG.

VI. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

VII. System Performance

Raw data were not reviewed for this SDG.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Dissolved Gases - Data Qualification Summary - SDG IQC2470/A7032601

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Dissolved Gases - Laboratory Blank Data Qualification Summary - SDG IQC2470/A7032601

No Sample Data Qualified in this SDG

Client: TestAmerica
Attn: Nicholas Marz

Page 2 of 3 A7032601

Client's Project: Date Received: IQC2470 3/23/2007

Matrix: Water Units: ug/L

		D	ssolved Ga	ses by l	EPA Proce						
		····				CMNE	02-WG	1322	07-000		
	.ab No.:	A703	2601-91	A703	2601-02	A703	2601-03	-A703	2601-04		
Client Sam	ple I.D.:	IQC	2470-08	IQC	2470-10	IQC	2470-13	IQC	2470-14		
Date S	ampled:	3/2	2/2007	3/2	2/2007	3/2	2/2007	3/2	2/2007		
Date A	nalyzed:	3/2	7/2007	3/2	7/2007	3/2	7/2007	3/2	7/20/07		
Analyst	Initials:		DT	/	DT.		DT	}	DT/		
Data File:		27:	27mar\$12		mar#13	271	mar014	27	015		· · · · · · · · · · · · · · · · · · ·
Q(Batch:	070327GC8A1		070327GC8A1		#78327GC8A1		97932/GC8A1			
Dilution	Factor:		1.0		1.0		1.0		/1.0		
ANALYTE	PQL	RL	Résults	RL	Results	RŁ	Results	RL/	Results		
Methane	1.0	1.0	/ 8.8	1.0	3.4	1.0	1.8	1.0/	17,000		
Ethane	2.0	2.0 /	ND	2.0	ND	2.0	ND	2.0	ND		
Ethylene	3.0	3,0	ND	3.0	ND	3.0	5.9	3,0	12		
Carbon Dioxide	200	/200	50,000	200	92,000	200	13,000	200	210,000		
Nitrogen	1,500	1.500	110,000	1,500	110,000	1,500	110,000	1,500	81,000		

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By:

Mark J. Johnson Operations Manager Date: 4/2/07

The cover letter is an integral part of this analytical report.

KC57007

	#: <u>IQC2470/A7032601</u>	<u></u>			Tier 2	Page:_			
Labor	atory: <u>Del Mar Analytical</u> - Cost America	Air I	echnology L	_aboratory	<u>Inc.</u>			Reviewer:_ 2nd Reviewer:	
METH	IOD: GC Dissolved Gase	 es (M	ethod RSK-	-175)				Zna Reviewei	
		•		·					
	amples listed below were tion findings worksheets.		ewed for ea	ch of the fo	ollowing valida	ation areas. V	alidation findi	ngs are noted in at	ttache
vallua	tion illidings worksheets.								
	Validation	Area					Comments		
I.	Technical holding times			Α	Sampling dates	41.	1		
IIa.	Initial calibration			Δ		, 990			
IIb.	Calibration verification			4	% D =				
111.	Blanks			A	<u>*</u>				
ıVa.	Surrogate recovery			N	not	Requi	و_		
IVb.	Matrix spike/Matrix spike du	olicate	:s	N	cli ent	ابه بعدد	uil		
IVc.	Laboratory control samples			A	LCS 10				
V.	Target compound identificat	ion		N	-				
VI.	Compound Quantitation and	CRQ	Ls	N					
VII.	System Performance			N					
VIII.	Overall assessment of data	***	Δ						
IX.	Field duplicates		N						
X	Field blanks			N				-	
Note:	A = Acceptable			o compounds	detected	D = Duplicate			
	N = Not provided/applicable SW = See worksheet		R = Rin: FB = Fie	sate eld blank		TB = Trip blar EB = Equipmo			
Validate	ed Samples:								
TAT	water								
<u> </u> 1	CMW002_WG032207_0001	11	WB -	3/27/0	7 21		31		
2		12			22		32		
3		13			23		33		
4		14			24		34		
5		15			25		35		
6		16			26		36		
7		17			27		37		
8		18			28		38		
9		19			29		39		
10		20			30		40		
Notes	:								

LDC #: 16739B51 VALIDATION COMPLETENESS WORKSHEET

Laboratory Data Consultants, Inc. **Data Validation Report**

Project/Site Name:

Boeing Realty Corp., Bldg C-6 Torrance

Collection Date:

March 27, 2007

LDC Report Date:

May 10, 2007

Matrix:

Water

Parameters:

Dissolved Gases

Validation Level:

Tier 3

Laboratory:

TestAmerica/Air Technology Laboratory, Inc.

Sample Delivery Group (SDG): IQC2895/A7032807

Sample Identification

MWB019 WG032707 0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method RSK-175 for Dissolved Gases.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 25.0% QC limits.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No dissolved gas contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were not required by the method.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-6 Torrance Dissolved Gases - Data Qualification Summary - SDG IQC2895/A7032807

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-6 Torrance Dissolved Gases - Laboratory Blank Data Qualification Summary - SDG IQC2895/A7032807

No Sample Data Qualified in this SDG

Client: TestAmerica Attn: Nicholas Marz Page 2 of 3 A7032807

Client's Project: Date Received: IQC2895 3/28/2007

Matrix: Water Units: ug/L

						dure RS	KSOP-175		
		MWB	19-WG	03>7	>7,000			 	
]	Lab No.:	A703	2807-01	A703	2807-02	A703	2807203		
Client Sam	ple I.D.:	IQC	2895-07	IQC	2895-08	IQC:	2895-09		
Date S	ampled:	3/2	7/2007	3/2	7/2007	3/2	7/2007		
Date A	nalyzed:	4/2	/2007	4/2	/2007	/4/2	/2007		
Analyst	Initials:		DT		DT		DT		
Data File:		02:	apr009	02	apr010	02:	pr011		
Q	C Batch:	07040	2GC8A1	0704	070402GC8A1		2GC8A1		
Dilution	Factor:		1.0	1.0		1.0			
ANALYTE	PQL	RL	Results	RL	Results	RL	Results		
Methane	1.0	1.0	ND	1.0	/10,000	1.0	3.5		
Ethane	2.8	2.0	ND	2.0	ND	2.0	ND		
Ethylene	3.0	3.0	ND	3.0	14	3.0	ND		
Carbon Dioxide	200	200	78,000	200	83,000	200	11,000		
Nitrogen	1,500	1,500	110,000	4,500	100,000	1,500	110;0 00		

PQL = Practical Quantitation Limit

ND = Not Detected (Below RL)

RL = PQL X Dilution Factor

Reviewed/Approved By: Mark J. Hopiton Date: Y/G/

Operations Manager

The cover letter is an integral part of this analytical report.

AITTECHNOLOGY Laboratories, Inc. -

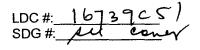
SDG Labor	#: 16739C51 #: IQC2895/A7032807 ratory: Del Mar Analytical Test Amenda HOD: GC Dissolved Gase	/Air T		_aboratory	Tier 3	ESS WO	RKSH	EET	Date: 5/10 Page: / of / Reviewer: / 2nd Reviewer: /
The s		e revi		,	ollowing v	alidation a	reas. Va	alidation find	dings are noted in attache
	Validation	Area					C	Comments	
1.	Technical holding times			Δ	Sampling d	ates: 3	> 27/1	07	
IIa.	Initial calibration			4	12	Zo. 99	<i>b</i> '		
IIb.	Calibration verification			Δ	0/0 [بر <u> </u>			
111.	Blanks			Δ					
IVa.	Surrogate recovery			N	not	Pequ			
IVb.	Matrix spike/Matrix spike du	plicate	s	N	مك	، لا <u>باتسا</u>	speci	piero.	
IVc.	Laboratory control samples			A-	Les	10	1	<u> </u>	
V.	Target compound identificat	ion		۵					
VI.	Compound Quantitation and	CRQ	Ls	Δ					
VII.	System Performance			Δ					
VIII.	Overall assessment of data			Δ					
IX.	Field duplicates			N					
X.	Field blanks			N					
Note: Validat	A = Acceptable N = Not provided/applicable SW = See worksheet ed Samples:		R = Rins	o compounds sate eld blank	s detected	TB =	Duplicate Trip blan Equipme		
1	MWB019_WG032707_0001	11	MB- 41	207	21			31	
2		12			22			32	
2 3 4 5		13			23			33	
4		14			24			34	
5		15			25			35	
6		16			26			36	
7		17			27			37	
8		18			28			38	
9		19			29			39	
10		20			30			40	
Notes	:								

LDC#: 16739 C5/ SDG#: rue coner

VALIDATION FINDINGS CHECKLIST

Method:	GC	HPLC

Method: GC HPLC				
Validation Area	Yes	No	NA	Findings/Comments
If Technical holding times.				
All technical holding times were met.				
Cooler temperature criteria was met.			***************************************	
II minal calibration :				
Did the laboratory perform a 5 point calibration prior to sample analysis?				·
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?	<u>. </u>			
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?	_			
Did the initial calibration meet the curve fit acceptance criteria?	_			
Were the RT wiridows properly established?		as a second	Salatoria.	
IV. Continuing calibration				
What type of continuing calibration calculation was performed?%D or %R				
Was a continuing calibration analyzed daily?				
Were all percent differences (%D) < 15%.0 or percent recoveries 85-115%?				
Were all the retention times within the acceptance windows?				
V. Blanks				
Was a method blank associated with every sample in this SDG?		-		
Was a method blank analyzed for each matrix and concentration?		~		
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		1	_	
Vi, Surrogate spikes				
Were all surrogate %R within the QC limits?				
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			/	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?				
VII, Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.			\	
Was a MS/MSD analyzed every 20 samples of each matrix?				
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?				
VIII Laboratory control samples				
Was an LCS analyzed for this SDG?				
Was an LCS analyzed per extraction batch?	/			
Was an LCS analyzed per extraction batch?				



VALIDATION FINDINGS CHECKLIST

Page: 2of 2
Reviewer: 2nd Reviewer: 2

Validation Area	Yes	No	NA	Findings/Comments
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?				
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?				
Were the performance evaluation (PE) samples within the acceptance limits?		- A		
X. Tärget compound dentification	1			
Were the retention times of reported detects within the RT windows?			100750000000	
XI: Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?				·
XII: System performance				And Section
System performance was found to be acceptable.				
XIII: Overall assessment of data in the second seco				
Overall assessment of data was found to be acceptable.		1		
XIV. Field dublicates				A STATE OF S
Were field duplicate pairs identified in this SDG?		/		
Were target compounds idetected in the field duplicates?				
XV. Field blanks				
Were field blanks identified in this SDG?				
Were target compounds detected in the field blanks?				

SDG# 16739CS/ SDG# pu coner

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

METHOD: GC Carbon Dioxide (Method RSK-175)

Parameter: Wethane Carbon Diskide

Order of regression:

			×	>
Date (Column/Detector	Compound	Mass	Area
			(Mudd)	
05/24/2007	TCD	C02	100	552
			1000	3718
	Front		2000	18595
			10000	40200
			100000	428338
			200000	1987935.0

Regress	Regression Output:		Reported
Constant	0.0	Constant	0.0
Std Err of Y Est	13500.069		
R Squared	0.99971	R Squared	0.999749
No. of Observations	9:000		
Degrees of Freedom	5.000		
X Coefficient(s)	3.98768E+000	X Coefficient(s)	3.98770E+000
Std Err of Coef.	0.03		

LDC# 16739CS SDG#:

Continuing Calibration Results Verification **VALIDATION FINDINGS WORKSHEET**

Page: Reviewer: 2nd Reviewer:

> FPLC METHOD: GC_

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF CF = A/C

Where: ave. CF = initial calibration average CF CF = continuing calibration CF A = Area of compound C = Concentration of compound

2, 12	
21.5	
g%	21.5
1	7.1.2

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC# 16739CS / Laborato

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

2nd Reviewer:

Page:____Reviewer:__

METHOD: GC HPLC

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where SSC = Spiked sample concentration SA = Spike added LCS = Laboratory Control Sample

SC = Sample concentration

RPD =(((ssclcs - ssclcsD) * 2) / (ssclcs + ssclcsD))*100

LCSD = Laboratory Control Sample duplicate

LCS/LCSD samples:

	Spike	وو	Sample	Spike S	ample	SOT	S;	CSD	Q	TCS/FCSD	csp
Compound	Added (DA) INV	~ <u>ed</u> ✓	Conc.	Concentration	ntration	Percent Recovery	Recovery	Percent Recovery	ecovery	RPD	٥
	rcs . \	LCSD	e f	LCS 1	CSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Berizene (8021B)											
Methane (RSK-175)	naol	7001	0	7404.3	8.2759	108	801	42	1.16	ء	و۔
2,4-D (8151)											
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)											
HMX (8330)				·							
2,4,6-Trinitrotoluene (8330)											

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC#: 16739 CS SDG#:

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Reviewer: Page:

2nd Reviewer: _

METHOD: Y N N/A

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10% of the reported results?

(RF)(Vs or Ws)(%S/100) (A)(Fv)(Df) Concentration=

A= Area or height of the compound to be measured Fv= Final Volume of extract

Df= Dilution Factor

RF= Average response factor of the compound in the initial calibration

Vs= Initial volume of the sample Ws= Initial weight of the sample %S= Percent Solid

Example:

Sample ID. 4

Compound Name

Concentration =

182283= (3.9877) (X)

		X	(= 45966, 250	1 0,0454 6 no m	my act o
#	Sample ID	Compound	Reported Concentrations	Recalculated Results Concentrations (ો વે Qualifications
		stro.0 = 2th ni early	(1001)(hh)(15.55) 1654	Dr.89 2 (
		0	1640		
		app in liquid =	(0.04596) (4) (4) (1000) (273)		200
		0	(36)(72)(4.22)		
		•	, ,		
		TOTAL= (68.44)	=(0091)(31-64	18,000 US	
		,		D	

Comments:



LABORATORY DATA CONSULTANTS, INC.

7750 El Camino Real, Suite 2L Carlsbad, CA 92009 Phone: 760/634-0437 Fax: 760/634-0439

Tait Environmental Management, Inc.

May 1, 2007

701 N. Park Center Drive Santa Ana, CA 92705 ATTN: Mr. Matt Hillman

SUBJECT: Boeing Realty Corp. Bldg C-1 Long Beach, Data Validation

Dear Mr. Hillman,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on April 9, 2007. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 16591:

SDG#	<u>Fraction</u>
IQC0980, IQC1776	Volatiles, Semivolatiles, TPH as Extractables, Hexavalent Chromium

The data validation was performed under Tier 1, Tier 2 and Tier 3 guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA, Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999
- USEPA, Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, October 1999
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998

Please feel free to contact us if you have any questions.

Sincerely,

Stella S. Cuenco

Project Manager/Senior Chemist

16591ST.wpd

Boeing Realty Corp., Bldg C-1 Long Beach Data Validation Reports LDC# 16591

Volatiles



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date:

March 15, 2007

LDC Report Date:

April 30, 2007

Matrix:

Water

Parameters:

Volatiles

Validation Level:

Tier 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Volatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all volatile target compounds and system performance check compounds (SPCCs) were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
2/28/07	2-Butanone	0.037 (≥0.05)	All samples in SDG IQC1776	J (all detects) UJ (all non-detects)	А

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

All of the continuing calibration RRF values were within method and validation criteria with the following exceptions:

Date	Compound	RRF (Limits)	Associated Samples	Flag	A or P
3/20/07	2-Butanone	0.040 (≥0.05)	All samples in SDG IQC1776	J (all detects) UJ (all non-detects)	Α

V. Blanks

Method blanks were reviewed for each matrix as applicable. No volatile contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Analysis Date	Compound TIC (RT in minutes)	Concentration	Associated Samples	
7C20023-BLK1	3/20/07	Tetrahydrofuran	8.39 ug/L	All samples in SDG IQC1776	

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>10X for common contaminants, >5X for other contaminants) than the concentrations found in the associated method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were not within QC limits. Since there were no associated samples, no data were qualified.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Flag	A or P
7C20023-BS1	2-Butanone 2-Hexanone	160 (40-140 151 (45-140)	All samples in SDG IQC1776	J (all detects) J (all detects)	Р

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach Volatiles - Data Qualification Summary - SDG IQC1776

SDG	Sample	Compound	Flag	A or P	Reason
IQC1776	MW3017_WG031507_0001	2-Butanone	J (all detects) UJ (all non-detects)	Α	Initial calibration (RRF)
IQC1776	MW3017_WG031507_0001	2-Butanone	J (all detects) UJ (all non-detects)	Α	Continuing calibration (RRF)
IQC1776	MW3017_WG031507_0001	2-Butanone 2-Hexanone	J (all detects) J (all detects)	Р	Laboratory control samples (%R)

Boeing Realty Corp., Bldg C-1 Long Beach Volatiles - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-1 Long Beach

701 N. Parkcenter Drive

EM-2701

Sampled: 03/15/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: 1QC1776

Received: 03/15/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data	
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers	
Sample ID: IQC1776-04 (MW3017_WG031507_0001 - Water)										
Reporting Units: ug/l										
Benzene	EPA 8260B	7C20023	0.28	1.0	1.1	1	03/20/07	03/20/07		
Bromobenzene	EPA 8260B	7C20023	0.27	1.0	ND	1	03/20/07	03/20/07		
Bromochloromethane	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07		
Bromodichloromethane	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07		
Bromoform	EPA 8260B	7C20023	0.40	1.0	ND	1	03/20/07	03/20/07		
Bromomethane	EPA 8260B	7C20023	0.42	1.0	ND	1	03/20/07	03/20/07		
2-Butanone (MEK)	EPA 8260B	7C20023	3.8	5.0	ND U	J 1	03/20/07	03/20/07	L	
n-Butylbenzene	EPA 8260B	7C20023	0.37	1.0	ND	1	03/20/07	03/20/07		
sec-Butylbenzene	EPA 8260B	7C20023	0.25	1.0	8.3	1	03/20/07	03/20/07		
tert-Butylbenzene	EPA 8260B	7C20023	0.22	1.0	0.89	1	03/20/07	03/20/07	J	
Carbon Disulfide	EPA 8260B	7C20023	0.48	1.0	0.68	1	03/20/07	03/20/07	J	
Carbon tetrachloride	EPA 8260B	7C20023	0.28	0.50	ND	1	03/20/07	03/20/07		
Chlorobenzene	EPA 8260B	7C20023	0.36	1.0	ND	1	03/20/07	03/20/07		
Chloroethane	EPA 8260B	7C20023	0.40	2.0	0.65	1	03/20/07	03/20/07	J	
Chloroform	EPA 8260B	7C20023	0.33	1.0	ND	I	03/20/07	03/20/07		
Chloromethane	EPA 8260B	7C20023	0.40	2.0	ND	1	03/20/07	03/20/07		
2-Chlorotoluene	EPA 8260B	7C20023	0.28	1.0	ND	1	03/20/07	03/20/07		
4-Chlorotoluene	EPA 8260B	7C20023	0.29	1.0	ND	1	03/20/07	03/20/07		
1,2-Dibromo-3-chloropropane	EPA 8260B	7C20023	0.97	2.0	ND	1	03/20/07	03/20/07		
Dibromochloromethane	EPA 8260B	7C20023	0.28	1.0	ND	1	03/20/07	03/20/07		
1,2-Dibromoethane (EDB)	EPA 8260B	7C20023	0.40	1.0	ND	1	03/20/07	03/20/07		
1,4-Dichlorobenzene	EPA 8260B	7C20023	0.37	1.0	ND	I	03/20/07	03/20/07		
1,2-Dichlorobenzene	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07		
1,3-Dichlorobenzene	EPA 8260B	7C20023	0.35	1.0	ND	1	03/20/07	03/20/07		
Dichlorodifluoromethane	EPA 8260B	7C20023	0.79	1.0	ND	1	03/20/07	03/20/07		
1,2-Dichloroethane	EPA 8260B	7C20023	0.28	0.50	1.2	1	03/20/07	03/20/07		
1,1-Dichloroethane	EPA 8260B	7C20023	0.27	1.0	2.6	1	03/20/07	03/20/07		
1,1-Dichloroethene	EPA 8260B	7C20023	0.42	1.0	ND	1	03/20/07	03/20/07		
cis-1,2-Dichloroethene	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07		
trans-1,2-Dichloroethene	EPA 8260B	7C20023	0.27	1.0	ND	1	03/20/07	03/20/07		
1,2-Dichloropropane	EPA 8260B	7C20023	0.35	1.0	ND	1	03/20/07	03/20/07		
2,2-Dichloropropane	EPA 8260B	7C20023	0.34	1.0	ND	1	03/20/07	03/20/07		
cis-1,3-Dichloropropene	EPA 8260B	7C20023	0.22	0.50	ND	I	03/20/07	03/20/07		
1,1-Dichloropropene	EPA 8260B	7C20023	0.28	1.0	ND .	1	03/20/07	03/20/07		
trans-1,3-Dichloropropene	EPA 8260B	7C20023	0.32	0.50	ND	1	03/20/07	03/20/07		
Ethylbenzene	EPA 8260B	7C20023	0.25	1.0	9.4	I	03/20/07	03/20/07		
Hexachlorobutadiene	EPA 8260B	7C20023	0.38	1.0	ND	1	03/20/07	03/20/07		
2-Hexanone	EPA 8260B	7C20023	2.6	6.0	ND	1	03/20/07	03/20/07	L	
lodomethane	EPA 8260B	7C20023	1.0	2.0	ND	1	03/20/07	03/20/07		
Isopropylbenzene	EPA 8260B	7C20023	0.25	1.0	8.8	1	03/20/07	03/20/07		
p-Isopropyltoluene	EPA 8260B	7C20023	0.28	1.0	1.6	1	03/20/07	03/20/07		
TestAmerica - Irvine. CA										

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

164507

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IQC1776 <Page 9 of 37>



ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-1 Long Beach 701 N. Parkcenter Drive

EM-2701

Sampled: 03/15/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC1776

Received: 03/15/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3017 WG0						·			
Reporting Units: ug/i		,							
Methyl-tert-butyl Ether (MTBE)	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07	
Methylene chloride	EPA 8260B	7C20023	0.95	1.0	ND	1	03/20/07	03/20/07	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	7C20023	3.5	5.0	ND	1	03/20/07	03/20/07	
n-Propylbenzene	EPA 8260B	7C20023	0.27	1:0	9.4	1	03/20/07	03/20/07	
Styrene	EPA 8260B	7C20023	0.16	1.0	ND	1	03/20/07	03/20/07	
1,1,1,2-Tetrachloroethane	EPA 8260B	7C20023	0.27	1.0	ND	1	03/20/07	03/20/07	
1,1,2,2-Tetrachloroethane	EPA 8260B	7C20023	0.24	1.0	ND	1	03/20/07	03/20/07	
Tetrachloroethene	EPA 8260B	7C20023	0.32	1.0	ND	1	03/20/07	03/20/07	
Tetrahydrofuran (THF)	EPA 8260B	7C20023	3.5	10	ND	1	03/20/07	03/20/07	
Toluene	EPA 8260B	7C20023	0.36	1.0	ND	1	03/20/07	03/20/07	
1,2,3-Trichlorobenzene	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07	
1,2,4-Trichlorobenzene	EPA 8260B	7C20023	0.48	1.0	ND	I	03/20/07	03/20/07	÷:
1,1,2-Trichloroethane	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07	
1,1,1-Trichloroethane	EPA 8260B	7C20023	0.30	1.0	ND	1	03/20/07	03/20/07	
Trichloroethene	EPA 8260B	7C20023	0.26	1.0	ND	1	03/20/07	03/20/07	
Trichlorofluoromethane	EPA 8260B	7C20023	0.34	2.0	ND	1	03/20/07	03/20/07	
1,2,3-Trichloropropane	EPA 8260B	7C20023	0.40	1.0	ND	1	03/20/07	03/20/07	
1,2,4-Trimethylbenzene	EPA 8260B	7C20023	0.23	1.0	8.3	1	03/20/07	03/20/07	
1,3,5-Trimethylbenzene	EPA 8260B	7C20023	0.26	1.0	2.5	1	03/20/07	03/20/07	
Vinyl acetate	EPA 8260B	7C20023	1.7	6.0	ND	1	03/20/07	03/20/07	
Vinyl chloride	EPA 8260B	7C20023	0.30	0.50	ND	1	03/20/07	03/20/07	
Xylenes, Total	EPA 8260B	7C20023	0.90	1.0	1.9	1	03/20/07	03/20/07	
Surrogate: 4-Bromofluorobenzene (80-120)	%)				111 %				
Surrogate: Dibromofluoromethane (80-120	%)				107 %				
Surrogate: Toluene-d8 (80-120%)					107 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

Rof=107

IQC1776 <Page 10 of 37>



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

701 N. Parkcenter Drive

Santa Ana, CA 92705

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

			MDL	Reporting	Sample	Dilution	Date	Date	Data
Analyte	Method	Batch	Limit	Limit	Result	Factor	Extracted	Analyzed	Qualifiers
Sample ID: IQC1776-04RE1 (MW30	17_WG031507_0001	- Water) - coi	ot.						
Reporting Units: ug/l									
Acetone	EPA 8260B	7C22010	4.5	10	ND	1	03/22/07	03/22/07	
Surrogate: 4-Bromofluorobenzene (80-	-120%)				100 %				
Surrogate: Dibromofluoromethane (80-	-120%)				96 %				
Surrogate: Toluene-d8 (80-120%)					98 %				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

No45007

IQC1776 <Page 11 of 37>

LDC #: 16591B1	VALIDATION COMPLETENESS WORKSHEET
SDG #: IQC1776	Tier 3
Laboratory: Test America	<u></u>

Reviewer: 2nd Reviewer:

METHOD: GC/MS Volatiles (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	Δ	Sampling dates: 3 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
11.	GC/MS Instrument performance check	Δ	
III.	Initial calibration	JU	1/2 RSD, (2 20.990
IV.	Continuing calibration	SW	
V.	Blanks	SU	
VI.	Surrogate spikes	\$	
VII.	Matrix spike/Matrix spike duplicates	سی	MW 3018_WG 031507_0001
VIII.	Laboratory control samples	sW	LUS
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	Δ	
XI.	Target compound identification	Δ	
XII.	Compound quantitation/CRQLs	4	
XIII.	Tentatively identified compounds (TICs)	2	not reported
XIV.	System performance	\triangle	3
XV.	Overall assessment of data	Δ	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note:

A = Acceptable

N = Not provided/applicable SW = See worksheet

ND = No compounds detected

R = Rinsate

FB = Field blank

D = Duplicate

TB = Trip blank
EB = Equipment blank

Validated Samples:

1 1	2 → 	11 }		21	31	
2	MW3017-WG031507_0001MS-	12 Z	7e22010-B4)	22	32	
3	MW 9017-WG031507_0001MS Đ	13		23	33	
4		14		24	 34	
5		15		25	35	
6		16		26	 36	
7		17		27	37	
8		18		28	38	
9		19		29	39	
10		20		30	40	

_DC #:	16591 B)
SDG #:	in cover

VALIDATION FINDINGS CHECKLIST

Page:_	/of 2
Reviewer:	P
2nd Reviewer:	

Method: Volatiles (EPA SW 846 Method 8260B)

Method: Volatiles (EPA SW 846 Method 8260B)	_			
Validation Area	Yes	No	NA	Findings/Comments
IN schill shading times as the second				
All technical holding times were met.	/	_		
Cooler temperature criteria was met.				
IN SCALS Insudment per omanos caselos are super servicios de la servicio del servicio de la servicio de la servicio del servicio de la servicio della servicio della servicio de la servicio della servic				
Were the BFB performance results reviewed and found to be within the specified criteria?				
Were all samples analyzed within the 12 hour clock criteria?				
(i) Homelicality and the second secon				
Did the laboratory perform a 5 point calibration prior to sample analysis?				
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?				
Was a curve fit used for evaluation?				
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?		<u>.</u>		· · · · · · · · · · · · · · · · · · ·
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?			-	
IVAC on an angle of the second				COMPANY OF A STATE OF
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?				
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?				·
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?		/		
V.Blanks is a second of the se				
Was a method blank associated with every sample in this SDG?	1			
Was a method blank analyzed at least once every 12 hours for each matrix and concentration?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
M Surrogate spikes				
Were all surrogate %R within QC limits?				
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			1	
MI Mainx spike Mainx spike duplicates 11	1			
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.				
Was a MS/MSD analyzed every 20 samples of each matrix?			$oldsymbol{\mathbb{I}}$	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	T			
Mit Laboratory control samples				
Was an LCS analyzed for this SDG?	1	L		

.DC #:	16591	B)
3DG #:	pe	cover

VALIDATION FINDINGS CHECKLIST

Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per analytical batch?	/	<u> </u>		
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?				r
i Kartegion ali Eustiny Assorance and Origina Common				
Were performance evaluation (PE) samples performed?				<u> </u>
Were the performance evaluation (PE) samples within the acceptance limits?				
Capierralistandaris services and a service services and a service and a serv				
Were internal standard area counts within -50% or +100% of the associated calibration standard?				
Were retention times within ± 30 seconds of the associated calibration standard?				
Nicharge Caracteria Centification (1981), the property of the company of the comp				
Were relative retention times (RRT's) within + 0.06 RRT units of the standard?				
Did compound spectra meet specified EPA "Functional Guidelines" criteria?				
Were chromatogram peaks verified and accounted for?				
XIII Compouro quantiatica (CROLS ACCESTED ACCEST				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?		-		
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?				
XIII Nedialiyevide ilina compounds (TICs)				
Were the major ions (> 10 percent relative intensity) in the reference spectrum evaluated in sample spectrum?		·		-
Were relative intensities of the major ions within \pm 20% between the sample and the reference spectra?				
Did the raw data indicate that the laboratory performed a library search for all equired peaks in the chromatograms (samples and blanks)?				
SV45V3temperordance				The state of the s
System performance was found to be acceptable.	1	<u> </u>		
Overall assessment ordata				
Overall assessment of data was found to be acceptable.	1			
V) Field duplicates and the second se				
Field duplicate pairs were identified in this SDG.	225422023	4		
arget compounds were detected in the field duplicates.				
ML Field Danks				Programme and the second secon
ield blanks were identified in this SDG.		1	_	
arget compounds were detected in the field blanks.			1	

METHOD: VOA (EPA SW 846 Method 8260B)

A. Chloromethane*	S. Trichloroethene	KK. Trichlorofluoromethane	COO test British and Cooperation	
B. Bromomethane	T. Dibromochloromethane	LL. MeithV-ten-bigA ether		UUU. 1,2-Dichlorotetrafluoroethane
C. Vlnyl choride**	11 4 4 9-11-14-14-14-14-14-14-14-14-14-14-14-14-		UUU. 1,4,4-1 nmetnyibenzene	VVV. 4-Ethyltoluene
	C. 1.14- Diction of the lane	MM. 1,2-Dibromo-3-chloropropane	EEE, sec-Butylbenzene	Www. Ethanol
U. Chloroethane	V. Benzene	NN. Methyl ethyl ketone	FFF. 1,3-Dichlorobenzene	YYY O' Increased the Company
E. Methylene chloride	W. trans-1,3-Dichloropropene	OO. 2,2-Dichloropropane	GGG n-leanman/letines	coc principli enier
F. Acetone	X. Bromoform*	PP. Bromochloromathana	יייי דייייי דייייייייייייייייייייייייי	TYY. tert-Butanol
G. Carbon disulfide	× 4-Methyl-2-produces		THH. 1,4-UICHIOTODBUZBNB	ZZZ. tert-Butyl alcohol
	i Tivou iyi-k-pelitanone	QQ. 1,1-Dichloropropene	III. n-Butylbenzene	AAAA. Ethyl tert-butyl ether
H. I,T-Dichloroethene**	Z. 2-Hexanone	RR. Dibromomethane	JJJ. 1,2-Dichlorobenzene	BRBB for Amel matter of
I. 1,1-Dichloroethane*	AA. Tetrachloroethene	SS. 1.3-Dichloropmoane	777 4 0 4 4441	oppe, terrority metry etner
J. 1,2-Dichloroethene, total	BB 1122-Tetrachiocochoses		777. 1,4,4-1 lichiolopenzene	CCCC.1-Chlorohexane
7		i i. 1,2-Dibromoethane	LLL. Hexachlorobutadiene	DDDD. Isopropyl atcohol
N. Onlorotorm	CC. Toluene**	UU. 1,1,1,2-Tetrachloroethane	MMM. Naphthalene	CEE Assistant
L. 1,2-Dichloroethane	DD. Chlorobenzene*	W. Isopropulpanzana		
M. 2-Butanone	n n n n n n n n n n n n n n n n n n n		II, Z, 3-1 nGhiorobenzene	FFFF, Acrolein
	רבי ביוולות מולפוום	WW. Bromobenzene	000. 1,3,5-Trichlorobenzene	GGGG. Acrylonitrile
N. 1,1,1-Trichloroethane	FF. Styrene	XX. 1,2,3-Trichloropropane	PPP, trans-1.2-Dichlomethene	יייייייייייייייייייייייייייייייייייייי
O. Carbon tetrachloride	GG. Xylenes, total	YY, n-Propylbenzene	OOO Ob. 1 2 Dehimating	יייייייייייייייייייייייייייייייייייייי
P. Bromodichioromethane	HH. Vinvi acetate	77 9 Chlorofathan		IIII. Isobutyi alconol
O 12-Dichiomorphic		44. 4-Critorotoldene	RRR. m,p-Xylenes	JJJJ. Methacrytonitrile
	II. Z-Chioroethylvinyl ether	AAA. 1,3,5-Trimethylbenzene	SSS. o-Xylene	KKKK. Proponitrile
R. cis-1,3-Dichloropropene	JJ. Dichlorodifluoromethane	BBB. 4-Chlorotoluene	TTT. 1,1,2-Trichloro-1,2,2-trifluoroethane	רוור
•				

* = System performance check compounds (SPCC) for RRF; ** = Calibration check compounds (CCC) for %RSD.

VALIDATION FINDINGS WORKSHEET

Initial Calibration

Reviewer: Page:_ 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

LDC #: 165918)

SDG#:

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". AN NA

Did the laboratory perform a 5 point calibration prior to sample analysis? N A

Were percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCC's and SPCC's?

Was a curve fit used for evaluation? If yes, what was the acceptance criteria used for evaluation?

Did the initial calibration meet the acceptance criteria? N-W.

A/N A/A

VALIDATION FINDINGS WORKSHEET

LDC #. | 654 | B)

SDG #:_

Continuing Calibration

Page:_ Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

∀

Ptease see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". A/A

Were percent differences (%D) and relative response factors (RRF) within method criteria for all CCC's and SPCC's? Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?

Were all %D and RRFs within the validation criteria of ≤25 %D and ≥0.05 RRF?

	4/50/5														
Associated Samples	AL 12	7620023-BIK1													
Finding RRF (Limit: >0.05)	Q+0.0														
Finding %D (Limit: <25.0%)							-								
Compound	\$														
Standard ID	3							MARKET TO THE PARTY OF THE PART							
# Date	32007	M441:9													

	و
8	11/2
630	1 BC
#	* :
8	ධි

VALIDATION FINDINGS WORKSHEET Blanks

Page: of	Reviewer: A	Reviewer:
Δ.	Revie	2nd Revie

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Was a method blank associated with every sample in this SDG?

Was a method blank analyzed at least once every 12 hours for each matrix and concentration? Was there contamination in the method blanks? If yes, please see the qualifications below. A/N/A A/N/N

Blank analysis date: 3/20/07

Associated Samples: # \ (ND)

Sample Identification BLK 1620023-Blank ID 8.39 Tetrahudio Juran Mathylene chloride Compound Acetone

Blank analysis date:

Conc. units:

Associated Samples:

Compound	Blank ID				Ö	Sample Identification	ion Flor		
			-						
Methylene chloride									
Acetorie				••••					
		,							
	٠								
						•			
1000									
בוומר								-	

Ali results were qualified using the criteria stated below except those circled.

Note: Common contaminants such as Methylene chloride, Acetone, 2-Butanone, Carbon disulfide and TICs that were detected in samples within ten times the associated method blank concentration were also qualified as not detected, "U". Other contaminants within five times the method blank concentration were also qualified as not detected, "U".

SDG #: " # DOS 16591B) LDC #:

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates

Page: 2nd Reviewer: Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

| VAL N/A | Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an

associated MS/MSD. Soil / Water.

Was a MS/MSD analyzed every 20 samples of each matrix? Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

			Π		T	Τ			Τ			T	Π		Ī		Τ				T	Ī	Ī	T
- Qualifications	TANO ON		7																RPD (Water)	< 14%	< 14%	< 11%	- < 13%	Ent. 1
Associated Samples	has		7																QC Limits (Water)	61-145%	71-120%	76-127%	76-125%	10000
· (s	('		^	^	^	^		^	^	_	^	_	^	^	^	^	^	^						L
RPD (Limits))_	J))	-)))	_	_))))))	RPD (Soil)	<u><</u> 22%	< 24%	< 21%	< 21%	70,70
	(S,	Ç	Trei	(<u> </u>	<u> </u>	î î	_	_	^	<u> </u>	ŗ	_		<u> </u>	_	_							
MSD %R (Limits)	15/ (65-135	(2h1-3h) S1	160 25-))))))))		_))	s (Soil)	2%	2%	2%	%6	200
(s)	\neg	- 1457	-152)	^	^	^	(^)	(<u> </u>)	-	(^	^	^	î	QC Limits (Soil)	59-172%	62-137%	66-142%	59-139%	AD 1999/
MS %R (Limits)	156 (65-135	-Sh)	1-32) ())))))	_)	_				<u> </u>	J						
	-) [51) 991																					
Compound	1_ III	£	77																pun					
MS/MSD ID	MW 3018, WGO>1501	000																	Compound	1,1-Dichloroethene	Trichloroethene	Benzene	Toluene	Chlorohenzene
Date																				Ξ	s,	, ,	SS.	20
*																								

VALIDATION FINDINGS WORKSHEET Laboratory Control Samples (LCS)

LDC #: 1659139 SDG #: 7501716

Page:

Reviewer: 2nd Reviewer:

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A". METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?

Was a LCS required?

Y/N N/A Z

16.26029-19-5 M 100 (40-14 0) (16.		7	ī	-	T	7	1	_	1	,	_												_
LCS/LCSD D Compound %R (Limits) %R	Qualifications	118 det																							
LCS/LCSD ID Compound %R (Limits) %	Associated Samples	7c2023-B41,	_																						
LCS/LCSD ID Compound %R (Limits) T.C. 200223-95 M 1bO (4p-14D) (RPD (Limits)	()	-()			((()	()	(()	()	()	()	()	()	()	()	()	()	()	()	()	
LCS/LCSD ID Compound	LCSD %R (Limits)	()	()	()	(()	()	()	()	()	· ·	()	()	()	()	()	()	()	()	()	()	()	()	
16 2002 Jr	LCS %R (Limits)	160 (40-140)	(Ch1-Sh) 151	()	(()	()	()	()	()	()	· ·	()	(")	()	()	()	()	()	()		()		()	,
16 2002 3-85	Compound	Z	т																						
Date		7620023-851															-								
	Date																								

78 C/17 163918 LDC #:

Initial Calibration Calculation Verification VALIDATION FINDINGS WORKSHEET

Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the

C_x ≈ Concentration of compound, S ≈ Standard deviation of the RRFs X ≈ Mean of the RRFs Ax = Area of compound,

 $A_{\rm h}$ = Area of associated internal standard $C_{\rm h}$ = Concentration of internal standard

 $RRF = (A_{\nu}(C_{k})/(A_{k})(C_{\nu})$ average RRF = sum of the RRFs/number of standards %RSD = 100 * (S/X)

						,			
·				Reported	Recalculated	Reported	Receloused		
*	Standard ID	Calibration Date	Compound (Reference Internal Chambran)	RRF	RRF	Average RRF	Average BRF	banodeu :	Kecalculated
-	1451	2/2/12	oranian oranian	(D std)	(JC std)	(Initial)	(initial)	%RSD	%RSD
T		10/0-1	Methylene chloride (1st internal standard)	0.436	7540	D. 2.0	pr.00	1 9 1	5.1
Γ			Trichlorethene (2nd internal standard)	0.314	416.0	0.35	0.23	000	293
1			Toluene (3rd internal standard)	0.209	6.269	0.281	ac o	2 2	7:-0
7			Methylene ehleride (1st internal standard)	1 201	700		2	2-10	λ- X
			Trichlorathone () and interest in	2007	1,205	1-314	1.314	Vo. 24	7.0
			(And internal standard)					-	
			loluene (3rd internal standard)				·		
6	747		Methylene chloride (1st internal standard)	0.69	0.169	0.110	7	1	
T			Trichlorethene (2nd Internal standard)					17.2	72.57
\dagger			Toluene (3rd internal standard)						
4			Methylene chioride (1st internal standard)	-					1
T			Trichlorethene (2nd internal standard)						
			Toluene (3rd internal standard)						
			(p. p. p						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the

INICLC,1SB

LDC #: SDG #:

Continuing Calibration Results Verification VALIDATION FINDINGS WORKSHEET

Page: 2nd Reviewer: Reviewer:

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF = $(A_J)(C_b)/(A_b)(C_J)$

Where: eve. RRF = initial calibration average RRF RRF = continuing calibration RRF

A_b = Area of associated internal standard C_b = Concentration of internal standard $A_x = Area of compound,$ $C_x = Concentration of compound,$

	٠.				Reported	Recalculated	Reported	Recalculated
#	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (initial)	RRF (CC)	RRF (CC)	ď%	%۵
-	cer	2/20/07	Methylene chloride (1st internal standard)	474	264.0	0.492	3.8	7,4
	Mabio		Trichlorethene (2nd Internal standard)	0.331	6.339	0.239	7.7	2.4
			Tetracinoce Hend	[82.0	0.2% /	0.2%	0	0
2			1, ユーロCの Methylene chloride (1st Internal standard)	1.314	466-1	1.234	1.	رج.
			Trichiorethene (2nd internal standard)					
			Toluene (3rd Internal standard)					
ဗ	cev	10/22/8	مرس به مربر المجرب المجرب المجرب المجرب المجرب المجرب المجربة	0-179	P.02.0	0.207	13-6	13.5
	7:10 AM		Trichlorethene (2nd internal standerd)			-		
			Leturne (Ord Internal standard)					
4	•		Methylene chloride (1st internal standard)					
			Trichlorethene (2nd internal standard)				-:	
			Toluene (3rd Internal standard)					

Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10,0% of the recalculated results Comments:

LDC #:_	16591B
SDG #:_	per cover

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page:_/	of
Reviewer:	3
2nd reviewer:	

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The p	percent recoveries	(%R	of surrogates	were recalculated for	the compounds	identified belo	w using th	e following	calculation
-------	--------------------	-----	---------------	-----------------------	---------------	-----------------	------------	-------------	-------------

% Recovery: SF/SS * 100

Where: SF = Surrogate Found

SS = Surrogate Spiked

Sample ID: #

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8	25.0	26.85	107	107	6
Bromofuorobenzene		27.67	11/	111	1
1,2-Dichloroethane-d4					
Dibromofiuoromethane	· V	26-84	107	1-107	

Sample ID:_

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8		•			
Bromofiuorobenzene	·				
1,2-Dichloroethane-d4	•	·		·	
Dibromofluoromethane					•

Sample ID:_

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8		·			
Bromofkorobenzene	·				
1,2-Dichloroethane-d4				·	,
Dibromofluoromethane					

Sample ID:_

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8					·
Bromofluorobenzene					
1,2-Dichloroethane-d4					٠.
Dibromofluoromethane					

Sample ID:

	Surrogate Spiked	Surrogat e Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Toluene-d8		·	· .		
Bromofluorobenzene					
1,2-Dichloroethane-d4		•			
Dibromofluoromethane					

LDC #: [659] B)
SDG #: 44 Cons

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates Results Verification

Page: / of / Reviewer: 7

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified

% Recovery = 100 * (SSC - SC)/SA

Where: SSC = Spiked sample concentration SA = Spike added

MSC = Matrix spike percent recovery

SC = Sample concentration

APD = I MSC - MSDC I * 2/(MSC + MSDC)

MSDC = Matrix spike duplicate percent recovery

MS/MSD sample; MW3018 - W 4031507 - 000

	o d	3										
	Added	pe p	Sample Concentration	Spiked Sample Concentration	ample	Matrix Spike	pike	Matrix Spike Duplicate	Duplicate	MS	MS/MSD	
Pillodiiio	7 (Mg)	1	(M&M)	() () () ()		Percent Recovery	WeV.					-
	9	201	þ				(1)	r ergent Recovery	ecovery	ш.	RPD	
		COM		MS	MSD	Reported	Recalc	Renorted	.,			
1,1-Dichloroethene	26.0	ر ان ان	0	7 17	-			periodore	necalc.	Reported	Recalculated	
110101010101			12	1-61	24.4	å.	6	90	ζ			_
i iiciiiol oethene	_;		CZ	7					\$,	_
Bonnon	}	T	A . 1		24,6	601	63	201	8	Ĵ	0	=
	نګخ		70.0	2 - 6	1	900						
Toluene	-			1		99	χο	107	9			
			an	24.0	26.0	80	8	ğ	. ×		0	_
Chlorobenzene		-	Ç	7		(1	2	2))	
	,	X	2	9 -	27.3	<u> </u>		200	9	_	-	_

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within

MSDCLC.1SB

LDC #: [6591B) SDG #: 244 Court

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample Results Verification

Page: of

Reviewer: 72

METHOD: GC/MS VOA (EPA SW 846 Method 8260B)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratoy control sample duplicate (if applicable) were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * SSC/SA

Where: SSC = Spiked sample concentration SA = Spike added

RPD = i LCS - LCSD | * 2/(LCS + LCSD)

185

7620023

LCS ID:

LOS = Laboraotry control sample percent recovery

LCSD = Laboratory control sample dupilicate percent recovery

	ds P	ike	Spiked	sample	rcs	S	CCSD	Q	/sɔ٦	rcs/rcsp
Compound	man)	(7)	(ng 7	ر چوان	Percent Recovery	ecovery	Percent Recovery	ecovery	æ	RPD
	rcs	LCSD	CS	CSD	Reported	Recalc.	Reported	Recalc.	Reported	Boceletistod
1,1-Dichloroethene	×.0	۲. A	23-8	٨a	56	Sb				\
Trichloroethene		•	4.92	•	90	<u>8</u>				
Benzene			27.4		10	QII				
Toluene			27.2		601	8				
Chlorobenzene	→	>	277	-	11	111	5			
							/			f
		i	٠.							
	·									
			·							
	·									

Comments: Refer to Laboratory Control Sample findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

201000

_DC#:	16591	_B/
5DG#:_	pu	مسم

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

	Page:	of /
F	Reviewer:_	15
2nd	reviewer:	70

YN N/A
Were all reported results recalculated and verified for all level IV samples?
Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Conce	entration	= (A,)(L)(DF) (A,)(RRF)(V_)(%S)
$\mathbf{A}_{\mathbf{x}_{\perp}}$	=	Area of the characteristic ion (EICP) for the compound to be measured
A _s	=	Area of the characteristic ion (EICP) for the specific internal standard
1.	=	Amount of internal standard added in nanograms

(ng)

RRF = Relative response factor of the calibration standard.

V_o = Volume or weight of sample pruged in milliliters (ml) or grams (g).

Df = Dilution factor.

%S = Percent solids, applicable to soils and solid matrices only.

example:		
Sample I.D	世	Benzue

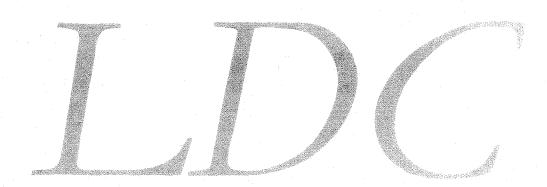
Gonc = (69826) (25) () () ()

1.13 ug/L

<i>#</i>	Sample ID	Compound	Reported Concentration	Calculated Concentration	Qualification
			· · · · · · · · · · · · · · · · · · ·		
	,		· · · · · · · · · · · · · · · · · · ·		
-					
				·	
			· .		
			·		
			·		
	·				
	·				
T					

Boeing Realty Corp., Bldg C-1 Long Beach Data Validation Reports LDC# 16591

Semivolatiles



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date:

March 15, 2007

LDC Report Date:

April 30, 2007

Matrix:

Water

Parameters:

Semivolatiles

Validation Level:

Tier 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8270C for Semivolatiles.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified a P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 15.0% for each individual compound and less than or equal to 30.0% for calibration check compounds (CCCs).

In the case where %RSD was greater than 15.0%, the laboratory used a calibration curve to evaluate the compound. All coefficients of determination (r^2) were greater than or equal to 0.990.

For the purposes of technical evaluation, all compounds were evaluated against the 30.0% (%RSD) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

Average relative response factors (RRF) for all semivolatile target compounds and system performance check compounds (SPCCs) were greater than or equal to 0.05 as required.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 20.0% for calibration check compounds (CCCs).

For the purposes of technical evaluation, all compounds were evaluated against the 25.0% (%D) National Functional Guideline criteria. Unless noted above, all compounds were within the validation criteria.

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

All of the continuing calibration RRF values were greater than or equal to 0.05.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No semivolatile contaminants were found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits with the following exceptions:

LCS ID (Associated Samples)	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Flag	A or P
7C16066-LCS/D	1,3-Dichlorobenzene	29 (35-120)	-	34 (≤25)	J (all detects)	P
(All samples in	1,4-Dichlorobenzene	34 (35-120)	-	27 (≤25)	UJ (all non-detects)	
SDG (QC1776)	1,2-Dichlorobenzene	35 (40-120)	-	31 (≤25)		
·	Hexachlorobutadiene	37 (40-120)	-	32 (≤25)		
	Hexachloroethane	28 (35-120)	-	32 (≤25)		
	1,2,4-Trichlorobenzene	41 (45-120)	-	35 (≤20)		
	Acenaphthene	-	-	33 (≤20)		
	Acenaphthylene	-	-	30 (≤20)		
	Anthracene	-	-	23 (≤20)		
	Benzo(a)anthracene	-	-	24 (≤20)		
	Benzo(k)fluoranthene	-	-	23 (≤20)		
	Benzyl alcohol	. -	-	33 (≤20)		
	Bis (2-chloroethoxy) methane	-	-	32 (≤20)	·	
	Bis(2-chloroethyl) ether	-	-	30 (≤20)		
	Bis(2-chloroisopropyl)ether	-	-	31 (≤20)		
	Bis(2-ethylhexyl)phthalate	-	-	25 (≤20)		
	4-Bromophenyl-phenyl ether	-	-	29 (≤25)		
	Butylbenzylphthalate	-	-	26 (≤20)		
	4-Chloroaniline	-	-	32 (≤25)		
	2-Chloronaphthalene	-	-	32 (≤20)		
	4-Chloro-3-methylphenol	-	-	33 (≤25)		
	2-Chlorophenol	-	-	30 (≤25)		
	4-Chlorophenyl-phenyl ether	-	-	33 (≤20)		
	Chrysene	-	-	28 (≤20)		
	Dibenzofuran	-	-	31 (≤20)		
	3,3'-Dichlorobenzidine	<u>-</u>	-	31 (≤25)		
	2,4-Dichlorophenol	-	-	33 (≤20)		
	2,4-Dimethylphenol	-	-	39 (≤25)		
	2,4-Dinitrophenol	-	-	26 (≤25)		
	2,4-Dinitrotoluene	-	-	24 (≤20)		
	2,6-Dinitrotoluene	-	-	30 (≤20)		
	Di-n-octylphthalate	-	-	30 (≤20)		
	Fluoranthene	-	-	21 (≤20)		
	Fluorene	-	-	34 (≤20)		
	Hexachlorobenzene	-	-	24 (≤20)		
:	Hexachlorocyclopentadiene	-	-	70 (≤30)		
	Isophorone	-	-	32 (≤20)		
	2-Methylnaphthalene	-	-	31 (≤20)		
	2-Methylphenol	-	-	33 (≤20)		
	4-Methylphenol	-	-	30 (≤20)		
	Naphthalene	-	-	29 (≤20)		
	2-Nitroaniline	-	-	32 (≤20)		
	3-Nitroaniline	-	-	30 (≤25)		
	4-Nitroaniline	-	-	27 (≤20)		
	Nitrobenzene	-	-	34 (≤25)		1
	2-Nitrophenol	-	-	37 (≤25)		
	N-Nitrosodiphenylamine	-	-	24 (≤20		
	N-Nitroso-di-n-propylamine	-		32 (≤20)	1	
	Phenanthrene	-	-	22 (≤20)		
	Phenol	-	-	29 (≤25)		
	2,4,5-Trichlorophenol	-	•	35 (≤30)		
	N-Nitrosodimethylamine	-	-	30 (≤20)		
4	1,2-Diphenylhydrazine/Azobenzene			27 (≤25)	I	1

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria.

XII. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

XIII. Tentatively Identified Compounds (TICs)

Tentatively identified compounds were not reported by the laboratory.

XIV. System Performance

The system performance was acceptable.

XV. Overall Assessment

Data flags have been summarized at the end of the report if data has been qualified.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach Semivolatiles - Data Qualification Summary - SDG IQC1776

SDG	Sample	Compound	Flag	A or P	Reason
IQC1776	MW3017_WG031507_0001	1,3-Dichlorobenzene 1,4-Dichlorobenzene 1,2-Dichlorobenzene Hexachlorobutadiene Hexachlorobutadiene Hexachlorobenzene Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) anthracene Benzo (a) anthracene Benzyl alcohol Bis (2-chloroethoxy) methane Bis (2-chloroethoxy) methane Bis (2-chloroisopropyl) ether Bis (2-chloro	J (all detects) UJ (all non-detects)	P	Laboratory control samples (%R)(RPD)
		1,2-Diphenylhydrazine/Azobenzene			

Boeing Realty Corp., Bldg C-1 Long Beach Semivolatiles - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing

Project ID: Boeing C-1 Long Beach

701 N. Parkcenter Drive

EM-2701

Sampled: 03/15/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC1776

Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Reporting Units: ng/1 Acenaphthene EPA 8270C 7C16066 1.9 9.5 ND
Acenaphthlene
Acenaphthylene
Aniline EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Anthracene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 8.1 19 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 8.1 19 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 8.1 19 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzidine EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethy)methane EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethy)lether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethy)lether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 4-Bromophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroanilhalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroanilhalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalene EPA
Anthracene EPA 8270C 7C16066 1.9 9.5 ND
Benzidine EPA 8270C 7C16066 8.1 19 ND 0.948 03/16/07 03/20/07 Benzoic acid EPA 8270C 7C16066 8.1 19 ND 0.948 03/16/07 03/20/07 Benzo(a)anthracene EPA 8270C 7C16066 1.9 9.5 ND UJ 0.948 03/16/07 03/20/07 Benzo(b)fluoranthene EPA 8270C 7C16066 1.9 9.5 ND UJ 0.948 03/16/07 03/20/07 Benzo(g,h,i)perylene EPA 8270C 7C16066 1.9 9.5 ND UJ 0.948 03/16/07 03/20/07 Benzo(a)pyrene EPA 8270C 7C16066 2.8 9.5 ND 0.948 03/16/07 03/20/07 Benzya algohol EPA 8270C 7C16066 2.4 19 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 2.4 19 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 2.4 9.5
Benzoic acid EPA 8270C 7C16066 8.1 19 ND 0.948 03/16/07 03/20/07 Benzo(a)anthracene EPA 8270C 7C16066 1.9 9.5 ND UT 0.948 03/16/07 03/20/07 Benzo(b)fluoranthene EPA 8270C 7C16066 1.9 9.5 ND UT 0.948 03/16/07 03/20/07 Benzo(g)h,i)perylene EPA 8270C 7C16066 1.9 9.5 ND UT 0.948 03/16/07 03/20/07 Benzo(g)h,i)perylene EPA 8270C 7C16066 2.8 9.5 ND UT 0.948 03/16/07 03/20/07 Benzo(a)hyrene EPA 8270C 7C16066 1.9 9.5 ND UT 0.948 03/16/07 03/20/07 Benzo(a)hyrene EPA 8270C 7C16066 1.9 9.5 ND UT 0.948 03/16/07 03/20/07 Benzo(a)hyrene EPA 8270C 7C16066 1.9 9.5 ND UT 0.948 03/16/07 03/20/07 Bisc2-chlororethoxy)methane EPA 8270C
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Benzo(b)fluoranthene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzo(k)fluoranthene EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07 Benzo(a)pyrene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzyl-alcohol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 2.4 19 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 2.4 19 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropt)lether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-cthylhexyl)phthalate EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 4-Bromophenyl phenyl ether EPA 8270C 7C16066 3.8 47 ND 0.948 <
Benzo(k)fluoranthene EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07 Benzo(g,h,i)perylene EPA 8270C 7C16066 2.8 9.5 ND 0.948 03/16/07 03/20/07 Benzo(a)pyrene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzyl alcohol EPA 8270C 7C16066 2.4 19 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)phthalate EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 4-Bromophenyl phenyl ether EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07
Benzo(g,h,i)perylene EPA 8270C 7C16066 2.8 9.5 ND 0.948 03/16/07 03/20/07 Benzo(a)pyrene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzył alcohol EPA 8270C 7C16066 2.4 19 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-cthylbexyl)phthalate EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalate EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07 4-Chloroaphthalene EPA 8270C
Benzo(a)pyrene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Benzył alcohol EPA 8270C 7C16066 2.4 19 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethoxy)methane EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisophenyl) phibalate
Benzyl alcohol EPA 8270C 7C16066 2.4 19 ND
Bis(2-chloroethoxy)methane EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroethyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chlylhexyl)phthalate EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 4-Bromophenyl phenyl ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Butyl benzyl phthalate EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07 4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 1.9 9.5 ND V 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 1.9 9.5 ND V 0.948 03/16/07 03/20/07 Dibenzofuran
Bis(2-chloroethylether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-chlylhexyl)phthalate EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 4-Bromophenyl phenyl ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Butyl benzyl phthalate EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07 4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 03/20/07
Bis(2-chloroisopropyl)ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Bis(2-ethylbexyl)phthalate EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 4-Bromophenyl phenyl ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Butyl benzyl phthalate EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07 4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07
Bis(2-ethylhexyl)phthalate EPA 8270C 7C16066 3.8 47 ND 0.948 03/16/07 03/20/07 4-Bromophenyl phenyl ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Butyl benzyl phthalate EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07 4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND √ 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 1.9 9.5 ND √ 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND √ 0.948 03/16/07 03/20/07
4-Bromophenyl phenyl ether EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 Butyl benzyl phthalate EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07 4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND √ 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND ₩ 0.948 03/16/07 03/20/07
Butyl benzyl phthalate EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07 4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND √ 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND ∪ 0.948 03/16/07 03/20/07
4-Chloroaniline EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND √ 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND √ 0.948 03/16/07 03/20/07
2-Chloronaphthalene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07
4-Chloro-3-methylphenol EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07 2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07
2-Chlorophenol EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07
4-Chlorophenyl phenyl ether EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Chrysene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND UT 0.948 03/16/07 03/20/07
Chrysene EPA 8270C 7C16066 1.9 9.5 ND ✓ 0.948 03/16/07 03/20/07 Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07
Dibenz(a,h)anthracene EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07 Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07
Dibenzofuran EPA 8270C 7C16066 1.9 9.5 ND U 0.948 03/16/07 03/20/07
Di-n-butyl phthalate FPA \$270C 7C16066 10 10 ND 0.049 02/16/07 02/20/07
1,3-Dichlorobenzene EPA 8270C 7C16066 2.8 9.5 ND V 0.948 03/16/07 03/20/07 L2
1,4-Dichlorobenzene EPA 8270C 7C16066 2.4 9.5 ND 0.948 03/16/07 03/20/07 L2
1,2-Dichlorobenzene EPA 8270C 7C16066 2.8 9.5 ND 0.948 03/16/07 03/20/07 L2
3,3-Dichlorobenzidine EPA 8270C 7C16066 2.8 19 ND 0.948 03/16/07 03/20/07
2,4-Dichlorophenol EPA 8270C 7C16066 1.9 9.5 ND V 0.948 03/16/07 03/20/07
Diethyl phthalate EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07
2,4-Dimethylphenol EPA 8270C 7C16066 3.3 19 ND 1 0.948 03/16/07 03/20/07
Dimethyl phthalate EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07
4,6-Dinitro-2-methylphenol EPA 8270C 7C16066 3.8 19 ND 0.948 03/16/07 03/20/07
2,4-Dinitrophenol EPA 8270C 7C16066 4.3 19 ND U 0.948 03/16/07 03/20/07
2,4-Dinitrotoluene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07
2,6-Dinitrotoluene EPA 8270C 7C16066 1.9 9.5 ND 0.948 03/16/07 03/20/07
Di-n-octyl phthalate EPA 8270C 7C16066 1.9 19 ND 0.948 03/16/07 03/20/07
Fluoranthene EPA 8270C 7C16066 1.9 9.5 ND \$\sqrt{0.948} 03/16/07 03/20/07

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

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ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing

Attention: Mehmet Pehlivan

701 N. Parkcenter Drive

Santa Ana, CA 92705

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07

SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution	Date Extracted	Date Analyzed	Data Oualifiers
•			Синч	LAIDIC	Result	1 4001	DANIACICO	Analyzau	& murrous
Sample ID: IQC1776-04 (MW3017_WG0	31507_0001 - Wa	ter) - cont.							
Reporting Units: ug/l	FD 4 0250C	201/0//		0.5	ND U	1 0 040	00/1/6/05	00.00.00	
Fluorene	EPA 8270C	7C16066	1.9	9.5			03/16/07	03/20/07	
Hexachlorobenzene	EPA 8270C	7C16066	2.4	9.5	ND	0.948	03/16/07	03/20/07	
Hexachlorobutadiene	EPA 8270C	7C16066	3.3	9.5	ND	0.948	03/16/07	03/20/07	L2
Hexachlorocyclopentadiene	EPA 8270C	7C16066	4.7	19	ND	0.948	03/16/07	03/20/07	
Hexachloroethane	EPA 8270C	7C16066	2.8	9.5	ND √		03/16/07	03/20/07	L2
Indeno(1,2,3-cd)pyrene	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
Isophorone	EPA 8270C	7C16066	1.9	9.5	ND VJ		03/16/07	03/20/07	
2-Methylnaphthalene	EPA 8270C	7C16066	1.9	9.5	13.7		03/16/07	03/20/07	
2-Methylphenol	EPA 8270C	7 C16066	1.9	9.5	NDW		03/16/07	03/20/07	
4-Methylphenol	EPA 8270C	7C16066	1.9	9.5	ND L	0.948	03/16/07	03/20/07	
Naphthalene	EPA 8270C	7C16066	2.4	9.5	16 7	0.948	03/16/07	03/20/07	
2-Nitroaniline	EPA 8270C	7C16066	1.9	19	NDU	,	03/16/07	03/20/07	
3-Nitroaniline	EPA 8270C	7C16066	1.9	19	ND	0.948	03/16/07	03/20/07	
4-Nitroaniline	EPA 8270C	7C16066	2.4	19	ND	0.948	03/16/07	03/20/07	
Nitrobenzene	EPA 8270C	7C16066	2.4	19	ND	0.948	03/16/07	03/20/07	
2-Nitrophenol	EPA 8270C	7C16066	3.3	9.5	ND ❖	0.948	03/16/07	03/20/07	
4-Nitrophenol	EPA 8270C	7C16066	5.2	19	ND	0.948	03/16/ 07	03/20/07	
N-Nitrosodiphenylamine	EPA 8270C	7C16066	1.9	9 .5	ND UJ	0.948	03/16/07	03/20/07	
N-Nitroso-di-n-propylamine	EPA 8270C	7C16066	2.4	9.5	ND 🕽	0.948	03/16/07	03/20/07	С
Pentachlorophenol **	EPA 8270C	7C16066	3.3	19	ND	0.948	03/16/07	03/20/07	
Phenanthrene	EPA 8270C	7C16066	1.9	9.5	ND NO	0.948	03/16/07	03/20/07	
Phenol	EPA 8270C	7C16066	1.9	9.5	ND ↓	0.948	03/16/07	03/20/07	
Pyrene	EPA 8270C	7C16066	1.9	9.5	ND	0.948	03/16/07	03/20/07	
1,2,4-Trichlorobenzene	EPA 8270C	7C16066	2.4	9.5	MDM	0.948	03/16/07	03/20/07	L2
2,4,5-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND 🎝	0.948	03/16/07	03/20/07	
2,4,6-Trichlorophenol	EPA 8270C	7C16066	2.8	19	ND	0.948	03/16/07	03/20/07	
N-Nitrosodimethylamine	EPA 8270C	7C16066	2.4	19	ND VJ	0.948	03/16/07	03/20/07	
1,2-Diphenylhydrazine/Azobenzene	EPA 8270C	7C16066	1.9	19	ND V	0.948	03/16/07	03/20/07	С
Surrogate: 2-Fluorophenol (30-120%)					65 %				
Surrogate: Phenol-d6 (35-120%)					73 %				
Surrogate: 2,4,6-Tribromophenol (40-120%))				83 %				
Surrogate: Nitrobenzene-d5 (40-120%)					79 %				
Surrogate: 2-Fluorobiphenyl (45-120%)					67 %				
Surrogate: Terphenyl-d14 (45-120%)					71%				

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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LDC #: 16591B2	VALIDATION COMPLETENESS WORKSHEET	
SDG #:_IQC1776	Tier 3	
Laboratory: Test America	~	R

Date:	4/26/0
Page:_	of
Reviewer:	
2nd Reviewer:	1

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270C)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
l.	Technical holding times	Δ	Sampling dates: 3 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
11.	GC/MS Instrument performance check	A	
101.	Initial calibration	۵	% PSD, 12 20,990
IV.	Continuing calibration	Δ	1CV = 25
V.	Blanks	A	
VI.	Surrogate spikes	Α	
VII.	Matrix spike/Matrix spike duplicates	N	client specifuel
VIII.	Laboratory control samples	s W	client speciful
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	4	
XI.	Target compound identification	Д	
XII.	Compound quantitation/CRQLs	Δ	•
XIII.	Tentatively identified compounds (TICs)	Ŋ	not reported
XIV.	System performance	۵	J
XV.	Overall assessment of data	4	
XVI.	Field duplicates	7	
XVII.	Field blanks	7	

Note:

A = Acceptable

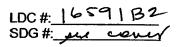
N = Not provided/applicable SW = See worksheet ND = No compounds detected

R = Rinsate FB = Field blank D = Duplicate TB = Trip blank

EB = Equipment blank

Validated Samples:

	VO 120				 	
1	MW3017-WG031507_0001	11	7016066-BLK)	21	31	
2		12		22	32	
3		13		23	33	
4		14		24	34	
5		15		25	35	
6		16		26	36	
7		17		27	37	
8		18		28	 38	
9		19		29	39	
10		20		30	40	

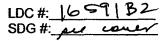


VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: 2nd Reviewer: 1

Method: Semivolatiles (EPA SW 846 Method 8270C)

	T	T		
Validation Area	Yes	No	NA	Findings/Comments
(A Decinicality) directimes and a Secretary and the Control of the				
All technical holding times were met.	/			
Cooler temperature criteria was met.	/			
ij, senistiismusiinsiamistisäsissä				
Were the DFTPP performance results reviewed and found to be within the specified criteria?	/			
Were all samples analyzed within the 12 hour clock criteria?	-			
Illuminate-alliganos estas				Electronic de la company
Did the laboratory perform a 5 point calibration prior to sample analysis?				
Were all percent relative standard deviations (%RSD) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	V			
Was a curve fit used for evaluation?				
Did the initial calibration meet the curve fit acceptance criteria of > 0.990?	/			
Were all percent relative standard deviations (%RSD) ≤ 30% and relative response factors (RRF) ≥ 0.05?				
Differentiable calibrations are as a second of the second				entario de la comunicación de la c
Was a continuing calibration standard analyzed at least once every 12 hours for each instrument?				
Were all percent differences (%D) and relative response factors (RRF) within method criteria for all CCCs and SPCCs?	/			
Were all percent differences (%D) ≤ 25% and relative response factors (RRF) ≥ 0.05?				
V.Blanks				
Was a method blank associated with every sample in this SDG?				
Was a method blank analyzed for each matrix and concentration?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.			_	
VI-Surrogate spikes				Property of the second
Were all surrogate %R within QC limits?				
If 2 or more base neutral or acid surrogates were outside QC limits, was a reanalysis performed to confirm %R?				
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?				
VII Matrix spike/Matrix spike duplicates (المراجعة على المراجعة المراجعة المراجعة المراجعة المراجعة المراجعة ا				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.				
Was a MS/MSD analyzed every 20 samples of each matrix?				
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?				
VIII Laboratory control samples				
Was an LCS analyzed for this SDG?				



VALIDATION FINDINGS CHECKLIST

Page:_	-20f_2
Reviewer:	B
2nd Reviewer:	

	_			
Validation Area	Yes	No	NA	Findings/Comments
Was an LCS analyzed per extraction batch?				
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?				·
Destagorán galigy assuránce and Oxallo Como de Assessor de Como de				
Were performance evaluation (PE) samples performed?				
Were the performance evaluation (PE) samples within the acceptance limits?	CONTRACTOR SE	Makang a car		
is in Granda Britania				
Were internal standard area counts within -50% or +100% of the associated calibration standard?				·
Were retention times within ± 30 seconds from the associated calibration standard?				
Consider the control and the control of the control				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?				
Did compound spectra meet specified EPA "Functional Guidelines" criteria?				
Were chromatogram peaks verified and accounted for?				
XII/Eompound quantitation/CRQLs				CHARLES OF STREET
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?		-		
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?		1		
XIIIsTenativev klantijedsotupopies (TICs)				A. D. Christian
Were the major ions (> 10 percent relative intensity) in the reference spectrum				
evaluated in sample spectrum?			_	
Were relative intensities of the major ions within \pm 20% between the sample and the reference spectra?				
Did the raw data indicate that the laboratory performed a library search for all required peaks in the chromatograms (samples and blanks)?				
XIV System performance				
System performance was found to be acceptable.				
XV Overall assessment of data				
Overall assessment of data was found to be acceptable.				
XVI (Field duplicates 2)				
Field duplicate pairs were identified in this SDG.				
Target compounds were detected in the field duplicates.				/
XVII Field blanks				
Field blanks were identified in this SDG.				
Target compounds were detected in the field blanks.			سيد	

VALIDATION FINDINGS WORKSHEET

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

A. Pheno!**	P. Bis(2-chloroethoxy)methane	EE. 2,6-Dinitrotoluene	TT. Pentachiorophenoi**	III. Benzo(a)pyrene**
B. Bis (2-chloroethyl) ether	Q. 2,4-Dichlorophenoi**	FF. 3-Nitroanlline	UU. Phenanthrene	JJJ. indeno(1,2,3-cd)pyrene
C. 2-Chiorophenol	R. 1,2,4-Trichlorobenzene	GG. Acenaphthene**	VV. Anthracene	KKK. Dibenz(a,h)anthracene
D. 1,3-Dichlorobenzene	S. Naphthalene	HH. 2,4-Dinitrophenol*	WW. Carbazole	LLL. Benzo(g,h,i)perylene
E. 1,4-Dichlorobenzene**	T. 4-Chioroaniline	II. 4-Nitrophenoi*	XX. Di-n-butyiphthalate	MMM. Bis(2-Chlorolsopropyl)ether
F. 1,2-Dichiorobenzene	U. Hexachiorobutadiene**	JJ, Dibenzofuran	YY. Fiuoranthene**	NNN. Aniline
G. 2-Methylphenol	V. 4-Chioro-3-methyiphenol**	KK. 2,4-Dinitrotojuene	ZZ. Pyrene	OOO. N-Nitrosodimethylamine
H. 2,2'-Oxybis(1-chloropropane)	W. 2-Methylnaphthalene	LL. Diethylphthalate	AAA. Butylbenzyiphthalate	PPP. Benzoic Acid
i. 4-Methylphenoi	X. Hexachlorocyclopentadlene*	MM. 4-Chiorophenyl-phenyl ether	BBB. 3,3'-Dichlorobenzidine	QQQ. Benzyl alcohol
J. N-Nitroso-di-n-propylamine*	Y. 2,4,6-Trichiorophenoi**	NN. Fluorene	CCC. Benzo(a) anthracene	RRR. Pyridine
K. Hexachioroethane	Z. 2,4,5-Trichlorophenol	OO. 4-Nitroaniline	DDD. Chrysene	SSS. Benzidine
L. Nitrobenzene	AA. 2-Chloronaphthalene	PP. 4,6-Dinitro-2-methylphenol	EEE. Bis (2-ethylhexyl) phthalate	m. A to being eme.
M. Isaphorone	BB. 2-Nitroaniline	QQ. N-Nitrosodiphenylamine (1)**	FFF, Di-n-octyiphthalate**	uuu.
N. 2-Nitrophenol**	CC. Dimethylphthalate	RR. 4-Bromophenyl-phenylether	GGG. Benzo(b)fluoranthene	wv.
O. 2,4-Dimethyiphenoi	DD. Acenaphthylene	SS. Hexachlorobenzene	HHH. Benzo(k)fluoranthene	www.

VALIDATION FINDINGS WORKSHEET Laboratory Control Samples (LCS)

LDC #: 1657/18/ SDG #: 1/8 9/17/6

Page: 2nd Reviewer: _ Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

Were the LCS/LCSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits? Phease see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

| N/A | N/A | Was a LCS required? N/A

								<u>a</u>	_				. •											
	9/11/1	v		-			>	R70'5 all 1/11		.II														
Associated Samples	A11 + B11/	۔ اـ					***************************************	adda they has	t : 4/1 0														-	·
RPD (Limits)))	`		De 24)		()			~							-				
LCSD %R (Limits)	()	()	())	()	()	(())))))	(()	())			^)	
LCS %R (Limits)	1021-361 62	1021-55) 46	35 (40-120)	(021-0h) LE	1021-25 1 82	0x1-sh , 1h		()	(()	()	((()	•	()	()	())	()	-	()
Compound	٥			Z	Y	R								-		·								
LCS/LCSD ID	7016066-105																							
F Date		-																						
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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Santa Ana, CA 92705

Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Data Qualifiers
Batch: 7C16066 Extracted: 03/16/07							0				4 mm.
Daten: /C10000 Extracted: 05/10/0/	<u>-</u>										
Blank Analyzed: 03/19/2007 (7C16066-B	LK1)										
Surrogate: Phenol-d6	13.6			ug/l	20.0	•	68	35-120			
Surrogate: 2,4,6-Tribromophenol	13.2			ug/l	20.0		66	40-120		•	
Surrogate: Nitrobenzene-d5	5.90			ug/l	10.0		59	40-120			
Surrogate: 2-Fluorobiphenyl	7.14			ug/l	10.0		71	45-120			
Surrogate: Terphenyl-d14	7.38			ug/l	10.0		74	45-120			
LCS Analyzed: 03/19/2007 (7C16066-BS	1)										MNR1
Acenaphthene	64.6	10	2.0	ug/I	100		65	55-120			
Acenaphthylene	72.4	10	2.0	ug/l	100		72	60-120			
Aniline	78.3	10	2.5	ug/l	100		78	40-120			
Anthracene	72.1	10	2.0	ug/l	100		72	60-120			
Benzidine	147	20	8.5	ug/I	100		147	25-160			
Benzoic acid	31.7	20	8.5	ug/l	100		32	25-120			
Benzo(a)anthracene	71.5	10	2.0	ug/l	100		72	60-120			
Benzo(b)fluoranthene	82.5	10	2.0	ug/l	100		82	55-125			
Benzo(k)fluoranthene	82.9	10	2.0	ug/l	100		83	50-125			
Benzo(g,h,i)perylene	98.0	10	3.0	ug/I	100		98	45-130			
Benzo(a)pyrene	88.8	10	2.0	ug/I	100		89	55-125			
Benzyl alcohol	61.3	20	2.5	ug/i	100		61	50-120			
Bis(2-chloroethoxy)methane	62,3	10	2.0	ug/l	100		62	55-120			
Bis(2-chloroethyl)ether	54.6	10	2.5	ug/i	100		55	50-120			
Bis(2-chloroisopropyl)ether	55.2	10	2.5	ug/l	100		55	45-120			
Bis(2-ethylhexyl)phthalate	69.2	50	4.0	ug/l	100		69	60-125			
4-Bromophenyl phenyl ether	66.5	10	2.5	ug/l	100		66	55-120			
Butyl benzyl phthalate	68.1	20	4.0	ug/l	100		68	50-125			
4-Chloroaniline	63.7	10	2.0	ug/l	100		64	50-120			
2-Chloronaphthalene	61.8	10	2.0	ug/l	100		62	55-120			
4-Chloro-3-methylphenol	61.4	20	2.0	ug/l	100		61	55-120			
2-Chlorophenol	57.6	10	2.0	ug/i	100		58	45-120			
4-Chlorophenyl phenyl ether	63.9	10	2.0	ug/l	100		64	60-120			
Chrysene	69.5	10	2.0	ug/l	100		70	60-120			
Dibenz(a,h)anthracene	94.5	20	3.0	ug/l	100		94	50-135			
Dibenzofuran	64.0	10	2.0	ug/l	100		64	60-120			
Di-n-butyl phthalate	75.7	20	2.0	ug/i	100		76	55-125			
1,3-Dichlorobenzene	29.3	10	3.0	ug/l	100		29	35-120	D		L2
1,4-Dichlorobenzene	34.4	10	2.5	ug/I	100		34	35-120 €	;		L2
Total manies Imina CA				_				_			

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive Santa Ana, CA 92705

Attention: Mehmet Pehlivan

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

		Reporting			Spike	Source		%REC	;	RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7C16066 Extracted: 03/16/0	<u>7</u>										
LCS Analyzed: 03/19/2007 (7C16066-BS	S1)										- MNR1
1,2-Dichlorobenzene	35.3	10	3.0	ug/i	100		35	40-120	F		L2
3,3-Dichlorobenzidine	68.8	20	3.0	ug/i	100		69	50-135			
2,4-Dichlorophenol	56.7	10	2.0	ug/i	100		57	50-120			
Diethyl phthalate	69.3	10	2.0	ug/i	100		69	50-120			
2,4-Dimethylphenol	45.8	20	3.5	ug/i	100		46	35-120			
Dimethyl phthalate	60.9	10	2.0	ug/i	100		61	25-120			
4,6-Dinitro-2-methylphenol	71.9	20	4.0	ug/i	100		72	40-120			
2,4-Dinitrophenol	68.7	20	4.5	ug/l	100		69	35-120			
2,4-Dinitrotoluene	74.4	10	2.0	ug/l	100		74	60-120			
2,6-Dinitrotoluene	67.9	10	2.0	ug/i	100		68	60-120			
Di-n-octyl phthalate	70.1	20	2.0	ug/l	100		70	60-130			
Fluoranthene	76.3	10	2.0	ug/i	100		76	55-120			
Fluorene	63.5	10	2.0	ug/i	100		64	60-120			
Hexachlorobenzene	69.1	10	2.5	ug/l	100		69	55-120			
Hexachlorobutadiene	36.9	10	3.5	ug/l	100		37	40-120	U		L2
Hexachlorocyclopentadiene	34.2	20	5.0	ug/i	100		34	20-120	-		
Hexachloroethane	27.9	10	3.0	ug/l	100		28	35-120	K		L2
Indeno(1,2,3-cd)pyrene	95.4	20	3.0	ug/i	100		95	45-135	•		
Isophorone	52.4	10	2.0	ug/l	100		52	50-120			
2-Methylnaphthalene	58.0	10	2.0	ug/l	100		58	50-120			
2-Methylphenol	59.6	10	2.0	ug/l	100		60	50-120			
4-Methylphenol	63.4	10	2.0	ug/l	100		63	45-120			
Naphthalene	55.7	10	2.5	ug/l	100		56	50-120			
2-Nitroaniline	66.6	20	2.0	ug/l	100		67	60-120			
3-Nitroaniline	82.9	20	2.0	ug/l	100		83	55-120			
4-Nitroaniline	85.9	20	2.5	ug/l	100		86	50-125			
Nitrobenzene	52.0	20	2.5	ug/l	100		52	50-120			
2-Nitrophenol	58.6	10	3.5	ug/l	100		59	45-120			
4-Nitrophenol	68.6	20	5.5	ug/l	100		69	40-120			
N-Nitrosodiphenylamine	64.2	10	2.0	ug/l	100		64	55-120			
N-Nitroso-di-n-propylamine	54.1	10	2.5	ug/l	100		54	45-120			
Pentachlorophenoi	83.2	20	3.5	ug/l	100		83	45-125			
Phenanthrene	70.3	10	2.0	ug/i	100		70	60-120			
Phenol	58.2	10	2.0	ug/l	100		58	45-120			
Pyrene	67.8	10	2.0	ug/l	100		68	50-125			
•				_							

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Nicholas Marz

Project Manager

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ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

TAIT Environmental/Boeing
701 N. Parkcenter Drive

701 N. Parkcenter Drive Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit (Qualifiers
Batch: 7C16066 Extracted: 03/16/07	<u>.</u> .										
LCS Analyzed: 03/19/2007 (7C16066-BS	1)							÷	•		MNR1
1,2,4-Trichlorobenzene	40.7	10	2.5	ug/i	100		41	45-120	R		L2
2,4,5-Trichlorophenol	61.9	20	3.0	ug/i	100		62	50-120			
2,4,6-Trichlorophenol	63.2	20	3.0	ug/l	100		63	50-120			
N-Nitrosodimethylamine	51.3	20	2.5	ug/l	100		51	40-120			
1,2-Diphenylhydrazine/Azobenzene	64.0	20	2.0	ug/l	100		64	55-120			
Surrogate: 2-Fluorophenol	10.9			ug/l	20.0		54	<i>30-120</i>			
Surrogate: Phenol-d6	11.4			ug/l	20.0		57	<i>35-120</i>			
Surrogate: 2,4,6-Tribromophenol	14.1			ug/l	20.0		70	40-120			
Surrogate: Nitrobenzene-d5	5.54			ug/l	10.0		55	40-120			
Surrogate: 2-Fluorobiphenyl	6.42			ug/l	10.0		64	<i>45-120</i>			
Surrogate: Terphenyl-d14	6.96			ug/l	10.0		<i>70</i>	<i>45-120</i>			
LCS Dup Analyzed: 03/19/2007 (7C1606	6-BSD1)										
Acenaphthene	90.2	10	2.0	ug/l	100		90	55-120	33	₂₀ 44	R-7
Acenaphthylene	98.1	10	2.0	ug/l	100		98	60-120	30	20 PD	R-7
Aniline	82.9	10	2.5	ug/l	100		83	40-120	6	30	
Anthracene	90.8	10	2.0	ug/l	100		91	60-120	23	2077	R-7
Benzidine	149	20	8.5	ug/l	100		149	25-160	1	35	
Benzoic acid	32.5	20	8.5	ug/l	100		32	25-120	2	30	
Benzo(a)anthracene	90.6	10	2.0	ug/l	100		91	60-120	24	20 CCC	- R-7
Benzo(b)fluoranthene	99.2	10	2.0	ug/l	100		99	55-125	18	25	
Benzo(k)fluoranthene	104	10	2.0	ug/l	100		104	50-125	23	20 HHV	R-7
Benzo(g,h,i)perylene	117	10	3.0	ug/l	100		117	45-130	18	25	
Benzo(a)pyrene	108	10	2.0	ug/l	100		108	55-125	20	25	
Benzyl alcohol	85.6	20	2.5	ug/l	100		86	50-120	33	20 B.Q.C	R-7
Bis(2-chloroethoxy)methane	85.8	10	2.0	ug/l	100		86	55-120	32	20 9	R-7
Bis(2-chloroethyl)ether	74.2	10	2.5	ug/l	100	+	74	50-120	30	20 3	R-7
Bis(2-chloroisopropy1)ether	75.8	10	2.5	ug/l	100		76	45-120	31	20 M MN	
Bis(2-ethylhexyl)phthalate	89.2	50	4.0	ug/l	100		89	60-125	25	20 E E E	
4-Bromophenyl phenyl ether	89.2	10	2.5	ug/l	100		89	55-120	29	25 RR	R-7
Butyl benzyl phthalate	88.2	20	4.0	ug/l	100		88	50-125	26	20 A-A-D	. R-7
4-Chloroaniline	88.2	10	2.0	ug/l	100		88	50-120	32	25 T	R-7
2-Chloronaphthalene	85.1	10	2.0	ug/l	100		85	55-120	32	20 🗛 📐	R-7
4-Chloro-3-methylphenol	85.6	20	2.0	ug/l	100		86	55-120	33	25 V	R-7
2-Chlorophenol	78.1	10	2.0	ug/l	100		78	45-120	30	25 C	R-7
4-Chlorophenyl phenyl ether	89.0	10	2.0	ug/l	100		89	60-120	33	20 M M	R-7

TestAmerica - Irvine, CA

Nicholas Marz

Project Manager

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IQC1776 <Page 33 of 37>



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TAIT Environmental/Boeing 701 N. Parkcenter Drive

Project ID: Boeing C-1 Long Beach

EM-2701

Sampled: 03/15/07

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Report Number: IQC1776

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

		Reporting			Spike	Source		%REC		RPD	Data
Analyte	Result	Limit	MDL	Units	Level	Result	%REC	Limits	RPD	Limit	Qualifiers
Batch: 7C16066 Extracted: 03/16/0	7_										
LCS Dup Analyzed: 03/19/2007 (7C1606	6-RSD1)										
Chrysene	92.3	10	2.0	ug/l	100		92	60-120	28	20 PVC) _{R-7}
Dibenz(a,h)anthracene	113	20	3.0	ug/l	100		113	50-135	18	25	N-7
Dibenzofuran	87.7	10	2.0	ug/l	100		88	60-120	31	ال 20 ال	R-7
Di-n-butyl phthalate	90.8	20	2.0	ug/l	100		91	55-125	18	20	107
1,3-Dichlorobenzene	41.4	10	3.0	ug/l	100		41	35-120	34	25 D -	R-2
1,4-Dichlorobenzene	45.3	10	2.5	ug/l	100		45	35-120	27	25 = -	
1,2-Dichlorobenzene	48.2	10	3.0	ug/l	100		48	40-120	31	25 F -	
3,3-Dichlorobenzidine	93.8	20	3.0	ug/l	100		94	50-135	31	25 BBB	
2,4-Dichlorophenol	79.1	10	2.0	ug/l	100		79	50-120	33	20 (ع) الاراحات	4
Diethyl phthalate	88.0	10	2.0	ug/l	100		88	50-120	24	30	
2,4-Dimethylphenol	67.9	20	3.5	ug/l	100		68	35-120	39	25 O	R-7
Dimethyl phthalate	79.9	10	2.0	ug/l	100		80	25-120	27	30	
4,6-Dinitro-2-methylphenol	89.2	20	4.0	ug/l	100		89	40-120	21	25	
2,4-Dinitrophenol	89.6	20	4.5	ug/l	100		90	35-120	26	25 HH	R-7
2,4-Dinitrotoluene	94.7	10	2.0	ug/l	100		95	60-120	24	20 KK	_ R-7
2,6-Dinitrotoluene	91.8	10	2.0	ug/I	100		92	60-120	30	20 È È	R-7
Di-n-octyl phthalate	94.5	20	2.0	ug/I	100		94	60-130	30	20 FFF	- R-7
Fluoranthene	94.1	10	2.0	ug/l	100		94	55-120	21	20 74	R-7
Fluorene	89.1	10	2.0	ug/I	100		89	60-120	34	20 NN	R-7
Hexachlorobenzene	88.1	10	2.5	ug/l	100		88	55-120	24	20 ろう	R-7
Hexachlorobutadiene	50.8	10	3.5	ug/l	100		51	40-120	32	25 U	R-2
Hexachlorocyclopentadiene	71.2	20	5.0	ug/l	100		71	20-120	70	30 ★	R-7
Hexachloroethane	38.6	10	3.0	ug/l	100		39	35-120	32	25 K-	R-2
Indeno(1,2,3-cd)pyrene	113	20	3.0	ug/l	100		113	45-135	17	25)
lsophorone	72.0	10	2.0	ug/l	100		72	50-120	32	20 👭	R-7
2-Methylnaphthalene	79.6	10	2.0	ug/l	100		80	50-120	31	20 ₩	R-7
2-Methylphenol	82.8	10	2.0	ug/l	100		83	50-120	33	20 G	R-7
4-Methylphenol	85.5	10	2.0	ug/l	100		86	45-120	30	20 工	R-7
Naphthalene	74.9	10	2.5	ug/l	100		75	50-120	29	20 5	R-7
2-Nitroaniline	92.3	20	2.0	ug/l	100		92	60-120	32	20 BB	R-7
3-Nitroaniline	112	20	2.0	ug/l	100		112	55-120	30	25 F F	R-7
4-Nitroaniline	113	20	2.5	.ug/l	100		113	50-125	27	20 😝 😉	R-7
Nitrobenzene	73.2	20	2.5	ug/l	100		73	50-120	34	25 L	R-7
2-Nitrophenol	85.2	10	3.5	ug/l	100		85	45-120	37	25 N	R-7
4-Nitrophenol	90.2	20	5.5	ug/l	100		90	40-120	$>\!\!<$	30	

TestAmerica - Irvine, CA Nicholas Marz Project Manager

> The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

IQC1776 <Page 34 of 37>

Test/America **ANALYTICAL TESTING CORPORATION**

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TAIT Environmental/Boeing 701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07



SEMI-VOLATILE ORGANICS BY GC/MS (EPA 3520C/8270C)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit Q	Data Dualifiers
Batch: 7C16066 Extracted: 03/16/0	<u>7_</u>								٠		
LCS Dup Analyzed: 03/19/2007 (7C1606	6-BSD1)										
N-Nitrosodiphenylamine	81.3	10	2.0	ug/l	100		81	55-120	24	20 රුරු	R-7
N-Nitroso-di-n-propylamine	74.7	10	2.5	ug/l	100		75	45-120	32	20 🜙	R-7
Pentachlorophenol	106	20	3.5	ug/l	100		106	45-125	24	25	
Phenanthrene	87.3	10	2.0	ug/l	100		87	60-120	22	20 U U	R-7
Phenol	78.3	10	2.0	ug/l	100		78	45-120	29	25 A	R-7
Pyrene	83.6	10	2.0	ug/l	100		84	50-125	21	25	
1,2,4-Trichlorobenzene	58.0	10	2.5	ug/l	100		58	45-120	35	20 R-	R-2
2,4,5-Trichlorophenol	88.2	20	3.0	ug/l	100		88	50-120	35	30 Z	R-7
2,4,6-Trichlorophenol	84.6	20	3.0	ug/l	100		85	50-120	29	30	
N-Nitrosodimethylamine	69.6	20	2.5	ug/l	100		70	40-120	30	20 p p p	R-7
1,2-Diphenylhydrazine/Azobenzene	84.3	20	2.0	ug/l	100		84	55-120	27	25	R-7
Surrogate: 2-Fluorophenol	14.9			ug/l	20.0		74	<i>30-120</i>			
Surrogate: Phenol-d6	15.9			ug/l	20.0		80	35-120			
Surrogate: 2,4,6-Tribromophenol	19.0			ug/l	20.0		95	40-120	•		
Surrogate: Nitrobenzene-d5	7.64			ug/l	10.0		76	40-120			
Surrogate: 2-Fluorobiphenyl	8.82			ug/l	10.0		88	45-120			
Surrogate: Terphenyl-d14	8.86			ug/l	10.0		89	45-120			

TestAmerica - Irvine, CA Nicholas Marz Project Manager

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)	SDG

Initial Calibration Calculation Verification VALIDATION FINDINGS WORNSTEEL

\ o / Page: Reviewer: 2nd Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The Relative Response Factor (RRF), average RRF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

RRF = $(A_u)(C_u)/(A_m)(C_u)$ average RRF = sum of the RRFs/number of standards %RSD = 100 * (S/X)

 $A_{\rm b}$ = Area of associated internal standard $C_{\rm b}$ = Concentration of internal standard X = Mean of the RRFs

A_x = Area of compound, C_x = Concentration of compound, S = Standard deviation of the RRFs,

L									
<u> </u>				Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
*	Standard ID	Calibration Date	Compound (Reference Internal Standard)	RRF & std)	RRF S std)	Average RRF (Initial)		%RSD	%RSD
-	1cal-8	70/8/8	Phenol (1st Internal standard)	2.111	7:1	2.125		4.0	4.01
\perp		~	Naphthalene (2nd internal standard)	1.036	1-036	1.030	1.030	06.0	CHS
			Fluorene (3rd internal standard)	1.32	(26-)	1.268	1.268	निगरी	9.44
			Pertachlorophenol (4th Internal standard)	Po-1 -81-0	1.093	PSO1 56-+	1.059	7	7,5
			Bis(2-ethylhexyl)phthalate (5th Internal standard)	1.596	1.396	1.308	1.308	4.67	2.67
			Benzo(a)pyrene (6th internal standard)	. 205	1.205	1.192	2611	4.89	2/2
7			Phenol (1st internal standard)						
			Naphthalene (2nd Internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
			Benzo(a)pyrene (6th internal standard)						
၉			Phenol (1st internal standard)						
			Naphthalene (2nd internal standard)						
			Fluorene (3rd internal standard)						
			Pentachlorophenol (4th internal standard)						
			Bis(2-ethylhexyl)phthalate (5th internal standard)						
-			Benzo(a)pyrene (6th internal standard)						

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10,0% of the recalculated results.

LDC #: 16 591B2 SDG #: 4 50 vel

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

Page: 1 of
Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF RFF = $(A_{\nu})(C_{\nu})/(A_{\nu})(C_{\nu})$

Where: ave. RRF = initial calibration average RRF RRF = continuing calibration RRF

 $A_x = Area of compound,$ $C_x = Concentration of compound,$

 A_k = Area of associated internal standard C_k = Concentration of internal standard

L								
					Reported	Recalculated	Reported	Recalculated
*	Standard ID	Calibration Date	Compound (Reference Internal Standard)	Average RRF (Initial)	RRF (CC)	RRF (CC)	Q%	0 %
-	Cer	3/20/07	Phenol (1st internal standard)	2.1.2	210-2	210.2	2.5	7.57
			Naphthalene (2nd internal standard)	1.030	260.1	760.1	ف ٥	09
			Fluorene (3rd internal standard)	1.268	1.323	1.323	4.3	2 2
			Pontachloropherrol (4th internal standard)	1.030	1.117	1.17) ()	
			Bis(2-ethylhexyl)phthalate (5th internal standard)	1.308	1.392	1.292	5.4	5:5
			Benzo(a)pyrene (6th internal standard)	1. 92	261.1	1.192	J. 0	5 (
2			Phenol (1st internal standard)					$C \cdot C$
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)					
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					
ღ			Phenoi (1st internal standard)					
			Naphthalene (2nd internal standard)					
			Fluorene (3rd internal standard)					
			Pentachlorophenol (4th internal standard)	-				
			Bis(2-ethylhexyl)phthalate (5th internal standard)					
			Benzo(a)pyrene (6th internal standard)					

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the ecalculated results LDC #: 16591B2 SDG #: eu cover

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

Page:_	1	_of_	
Reviewer:_		人	<u>. </u>
2nd reviewer:_		N	7

METHOD: GC/MS Semivolatiles (EPA SW 846 Method 8270)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found

SS = Surrogate Spiked

Sample ID: #

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5	ç	3.95	1 79	79	0
2-Fluorobiphenyl		337	67	67	1
Terphenyl-d14		3.56	71	1 11	
Phenol-d5	10	7.29	13	13	
2-Fluorophenol	* 1	6.49	65	65	
2,4,6-Tribromophenol		8.30	४३	83	1
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					٠,
Terphenyl-d14					
Phenol-d5	·				
2-Fluorophenol				·	
2,4,6-Tribromophenol					
2-Chlorophenol-d4					
1,2-Dichlorobenzene-d4					

Sample ID:

	Surrogate Spiked	Surrogate Found	Percent Recovery Reported	Percent Recovery Recalculated	Percent Difference
Nitrobenzene-d5					
2-Fluorobiphenyl					
Terphenyl-d14			-		
Phenol-d5		·			
2-Fluorophenol					
2,4,6-Tribromophenol					
2-Chlorophenol-d4				•	
1,2-Dichlorobenzene-d4					

LDC # 1659182

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification VALIDATION FINDINGS WORKSHEET

Page:

Reviewer:

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA

SSC = Spike concentration SA = Spike added Where:

RPD = I LCS - LCSD I * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery

1016066- 105 D LCS/LCSD samples: _

LCSD = Laboratory control sample duplicate percent recovery

	Sp	ike	S	Spike	Ĭ	SO	31	csn	I CS/	CS/I CSD
Compound	Addec	Added	Concentra (Max	Concentration	Percent I	Percent Recovery	Percent	Percent Recovery	R	RPD
	1.08	U. I.Csn	SUI	USD I CSD	Reported	Recalc	Reported	Racaic	Reported	Recalculated
	091		28.7	783	35	8	7	78	62	62
N-Nitroso-di-n-propylamine			ا ، ا ند	74.7	5	टेड	1/2	X	72	22
4-Chloro-3-methylphenol			61.4	Ø. 3%	و	و	20	Z.	33	33
Acenaphthene			64.6	2.06	59	٩٧	9	90	83	73
Pentachlorophenol			83.2	106	% ક	83	901	90	77	ट्र
	->		67.8	\$3·6	69	Q 9	र %	78	12	2

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #:_	16	59182	-
SDG #:	pu	ce ver	

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Example:

Page:	/_of_/
Reviewer:	þ
2nd reviewer:	

METHOD: GC/MS BNA (EPA SW 846 Method 8270)

<u>Y</u>)	N	N/A
Y/	N	N/A
7		

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $(A_{\bullet})(I_{\bullet})(V_{\bullet})(DF)(2.0)$ $(A_{\bullet})(RRF)(V_{\bullet})(V_{\bullet})(%S)$

A_x = Area of the characteristic ion (EICP) for the compound to be measured

A_{is} = Area of the characteristic ion (EICP) for the specific internal standard

i. = Amount of internal standard added in nanograms (ng)

V_o = Volume or weight of sample extract in milliliters (ml) or grams (g).

V_i = Volume of extract injected in microliters (ul)

V. = Volume of the concentrated extract in microliters (ul)

Df = Dilution Factor.

%S = Percent solids, applicable to soil and solid matrices only.

2.0 = Factor of 2 to account for GPC cleanup

Sample I.D. + Naphthaline		
Conc. = (365945)(40)(2)(1654509)(1.030)(1055)+	1000)(
= lbug/L	•	

			Reported Concentration	Calculated Concentration	
#	Sample ID	Compound	()	()	Qualification
					·
				·	
				·	
					·
-					

Boeing Realty Corp., Bldg C-1 Long Beach Data Validation Reports LDC# 16591

Hexavalent Chromium



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date:

March 8, 2007

LDC Report Date:

April 26, 2007

Matrix:

Water

Parameters:

Hexavalent chromium

Validation Level:

Tier 1, 2, & 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC0980

Sample Identification

MW3009_WG030807_0001 MW3012_WG030807_0001* MW3012_WG030807_0002**

^{*}Indicates sample underwent Tier 2 review **Indicates sample underwent Tier 3 review All other samples underwent Tier 1 review

Introduction

This data review covers 3 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 7196A for Hexavalent chromium.

The review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (October 2004) as there are no current guidelines for the methods stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

Samples indicated by a double asterisk on the front cover underwent a Tier 3 review. A Tier 2 or Tier 1 review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

All criteria for the initial calibration of each method were met.

Initial calibration data were not reviewed for Tier I.

b. Calibration Verification

Calibration verification frequency and analysis criteria were met for each method when applicable.

Calibration verification data were not reviewed for Tier I.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

IV. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable.

VI. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits.

VII. Sample Result Verification

All sample result verifications were acceptable for samples on which a Tier 3 review was performed. Raw data were not evaluated for the samples reviewed by Tier 2 or Tier 1 criteria.

VIII. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

IX. Field Duplicates

Samples were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

	Concentra	ation (ug/L)	
Analyte	MW3012_WG030807_0001*	MW3012_WG030807_0002**	RPD
Hexavalent chromium	1.3	0.98	28

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach Hexavalent chromium - Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach Hexavalent chromium - Laboratory Blank Data Qualification Summary - SDG IQC0980

No Sample Data Qualified in this SDG



ANALYTICAL TESTING CORPORATION

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TAIT Environmental/Boeing

701 N. Parkcenter Drive

Santa Ana, CA 92705 Attention: Mehmet Pehlivan Project ID: Boeing C-1 Long Beach

EM-2701-05

Report Number: 1QC0980

Sampled: 03/08/07

Received: 03/08/07

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IOC0980-01 (TB_TAIT0300	307_0001 - Water)	ı.			Sample	ed: 03/08/0)7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	—ND—		03/08/07	_03/08/07	
Sample ID: IQC0980-02 (MW3009_WG	6030807_0001 - W	ater)			Sample	d: 03/08/0	07		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	ND	1	03/08/07	03/08/07	
<u> </u>	:030807_0001 - W	ater)			Sample	:d: 03/08/0)7		
Reporting Units: ug/I									
Chromium VI	EPA 7196A	7C08171	0.65	25	11		03/08/07	03/08/07	J
Sample ID: IQC0980-04 (MW3015_WG	030807_0001 - W	ater)			Sample	ed: 03/08/0)7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C 08171	0.65	25	49	1	03/08/07	03/08/07	
Sample ID: IQC0980-05 (MW3014_WG	0308 07 _0001 - W	ater)			Sample	d: 03/08/0	7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	13	1	03/08/07	03/08/07	J
Sample ID: 10C0980-06 (MW3013_WG	030807_0001 - W	ater)			Sample	d: 03/08/0)7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	3.4		03/08/07	03/08/07	J
Sample ID: IQC0980-07 (MW3012_WG	030807_0001 - W	ater)			Sample	d: 03/08/0	07		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	1.3	i	03/08/07	03/08/07	J
Sample ID: IQC0980-08 (MW3012_WG	030807_0002 - W	ater)			Sample	d: 03/08/0	7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	0.98	1	03/08/07	03/08/07	J
Sample ID: IQC0980-09 (MW3011 WG	030807_0001 - W	ater)			Sample	d: 03/08/0	7		
Reporting Units: ug/l									
Chromium VI	EPA 7196A	7C08171	0.65	25	4.7	1	03/08/07	03/08/07	J
Sample ID: IQC0980-10 (MW3010_WG	030807_0001 - Wa	ater)			Sample	d: 03/08/0	7		
Reporting Units: ug/l					-				
Chromium VI	EPA 7196A	7C08171	3.2	120	140	5	03/08/07	03/08/07	

TestAmerica - Irvine, CA Nicholas Marz

Project Manager

WH2507

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IQC0980 <Page 2 of 7>

LDC # SDG # Labora		VALI	DATIO		PLETENES: ier 1/2/3	S WORKSHEET		Date: Ӌឦ Page: (of ∫ Reviewer: ∠ 2nd Reviewer: _
	OD: Hexavalent Chromius					ation areas. Validation	on findings	s are noted in attached
	inples listed below were in its findings worksheets.	eviewe	u ioi ea		Jiowing valida	alon aleas. Validati	————	s are noted in attached
	Validation A	rea				Comn	ents	
<u>l.</u>	Technical holding times			A	Sampling dates:	3/8/07		
IIa.	Initial calibration			A	Not reviewed fo	r Tier I validation.		
IIb.	Calibration verification			A	Not reviewed fo	or Tier I validation.		
111.	Blanks			A				
IVa.	Matrix Spike/(Matrix Spike) Du	plicates		A	MS/MSK	120980-0		
IVb.	Laboratory control samples			A	Ve5			
V.	Sample result verification			A	Not reviewed fo	or Tier I or Tier II validation	on.	
VI.	Overall assessment of data			A				
VII.	Field duplicates			5 h/	(2,3)		
VIII	Field blanks			 				
Note: √alidate	A = Acceptable N = Not provided/applicable SW = See worksheet d Samples: * Indicates sample	underwe	R = Rin FB = Fid	eld blank		D = Duplicate TB = Trip blank EB = Equipment blar ple underwent Tier III va		
1	MW3009_WG030807_0001 [\]	11			21		31	
	MW3012_WG030807_0001*	12			22		32	
1	MW3012_WG030807_0002**	13			23		33	
4	MB	14			24		34	
5		15			25		35	
6		16			26		36	
7		17			27		37	
8		18			28		38	
9		19			29		39	
10		20	···		30		40	

LDC #: 1651 M6 SDG #: See an

VALIDATION FINDINGS CHECKLIST

Page: of Reviewer: yy

Method:Inorganics (EPA Method 71964)

Wellder A.	T.,	Τ	Ι	
Validation Area	Yes	No	NA NA	Findings/Comments
All technical holding times were met.				
Cooler temperature criteria was met.	1/	l		, , , , , , , , , , , , , , , , , , ,
The direction of the property of the state o				
Were all instruments calibrated daily, each set-up time?	/			
Were the proper number of standards used?	1			
Were all initial calibration correlation coefficients > 0.995?	1			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	/			·
Were titrant checks performed as required? (Level IV only)			/	
Were balance checks performed as required? (Level IV only)				
Michael Carlos				After 10.24 William Control
Was a method blank associated with every sample in this SDG?				
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.				
IV Matrix spike Marrix spike Obplicates and Ouplicates				The second second second
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	/			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.				
Were the MS/MSD or duplicate relative percent differences (RPD) \leq 20% for waters and \leq 35% for soil samples? A control limit of \leq CRDL(\leq 2X CRDL for soil) was used for samples that were \leq 5X the CRDL, including when only one of the duplicate sample values were \leq 5X the CRDL.	/			
V. i Eaboratory control is amples service and the service serv				
Was an LCS anaytzed for this SDG?	/			
Was an LCS analyzed per extraction batch?	4			
Were the LCS percent recoverles (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	\mathcal{A}			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?			1	
Were the performance evaluation (PF) samples within the acceptance limits?			1	

LDC#: 16571166 SDG#: 12 11

VALIDATION FINDINGS CHECKLIST

Page:i	_of_	
Reviewer:	my	
2nd Reviewer:	-	Z

Validation Area	Yes		NA	Findings/Comments
VII. Sample Result Vertication.				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	1			
Were detection limits < RL?				
Will capture and thousand the control of the capture of the captur		j i		
Overall assessment of data was found to be acceptable.				
XS classificates 2 2 2 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3				
Field duplicate pairs were identified In this SDG.	/			
Target analytes were detected in the field duplicates.				
Kanaeld: planks (g. 1995) and the state of t				
Field blanks were identified in this SDG.				
Target analytes were detected in the field blanks.			7	

LDC#:	16591A6
SDG#	IOC0080

VALIDATION FINDINGS WORKSHEET Field Duplicates

Page:___ Reviewer:_ 2nd Reviewer:_

Inorganics, Method 7196A

(Y)N	NA
MIN	NΔ

Were field duplicate pairs identified in this SDG? Were target analytes detected in the field duplicate pairs?

	Concentra	ation (ug/L)		
Analyte	2	3	RPD	
Cr (VI)	1.3	0.98	28	

V:\FIELD DUPLICATES\FD_inorganic\16591A6.wpd

LDC #:

Initial and Continuing Calibration Calculation Verification VALIDATION FINDINGS WORKSHEET

Reviewer: Page:

METHOD: Inorganics, Method

The correlation coefficient (r) for the calibration of ____

was recalculated. Calibration date:_

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution True = concentration of each analyte in the ICV or CCV source

%R = Found × 100 True

					Recalculated	Reported	
Type of Analysis	Analyte		Core, (wy/)	/// (units)	r or %R	ror %R	Acceptable (Y/N)
Initial calibration		Blank	0	0			
Calibration verification		Standard 1	ا م۰۵	0.007			
	- To - 100-	Standard 2	orox	6,023			
	· · ·	Standard 3	٥٠)	0,083			•
	+3/3	Standard 4	٥، لا	0,414	1 68880-1	× 2000 000	
	5	Standard 5		,		01 111 644	_
*		Standard 6					
		Standard 7					
Calibration verification $\mathcal{L}^{\mathcal{C}\mathcal{V}}$	+9 [∞]	0.0	[0]:0		(a)	ISK	7
Calibration verification $c\omega$	t it	6,3	01800		\{ 5 }]	- AJ	1
Calibration verification							

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

CALCLC.6

LDC #: SDG #:

VALIDATION FINDINGS WORKSHEET **Level IV Recalculation Worksheet**

2nd Reviewer:

METHOD: Inorganics, Method ___

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

Where %R = <u>Found</u> x 100 True

Found =

True =

concentration of each analyte <u>measured</u> in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result). concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

 $RPD = \underbrace{1S \cdot D!}_{(S+D)/2} \times 100 \text{ Where,}$

|| || || 0

Original sample concentration Duplicate sample concentration

					Recalculated	Reported	,
Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	%R / RPD	%R / RPD	Acceptable (Y/N)
	Laboratory control sample						
7		to	•)	000	2	(3)	> '
0000	Matrix spike sample		(SSR-SR)				
To o			205	300	7 3	ž	
	Duplicate sample	K			(G	-\
~			to t	<u>.</u>	O	٥	

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTOLO.8

					•	
LDC #	#: bot log #: see a	VALIDATION FINDINGS WO Sample Calculation Veri		_	:(of ::M^1 ::N	
METH	IOD: Inorganics, Metho	d71964				
N N	N/A Have results N/A Are results with	ow for all questions answered "N". Not apple been reported and calculated correctly? Ithin the calibrated range of the instrumention limits below the CRQL?	nts?	re Identified as "i ted with a positiv		r
recalculated and verified using the following equation: Concentration = Recalculation:						
	$M_2 = \frac{M_3 - 0.6}{0.85}$	7 Cyft -	0,829	2	0, 0.086	ms/L
#	Sample ID	Analyte	Reported Concentration	Calculated Concentration	Acceptable (Y/N)	
-	3	cr6+	098	0.86	У	

#	Sample ID	Analyte	Reported Concentration ()	Calculated Concentration	Acceptable (Y/N)
7	3	cr6+	098	0.86	4
-					/
				·	
 					
 -					
-					
 					
	·				
ļ					
					
 					
<u></u>			<u> </u>		<u> </u>

Note:	1204	3	Lewnol	pour ?	0~	print	out	fu	Mhr.	
	- γ-			7						

Boeing Realty Corp., Bldg C-1 Long Beach Data Validation Reports LDC# 16591

TPH as Extractables



Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Boeing Realty Corp., Bldg C-1 Long Beach

Collection Date:

March 15, 2007

LDC Report Date:

April 30, 2007

Matrix:

Water

Parameters:

Total Petroleum Hydrocarbons as Extractables

Validation Level:

Tier 3

Laboratory:

TestAmerica

Sample Delivery Group (SDG): IQC1776

Sample Identification

MW3017_WG031507_0001

Introduction

This data review covers one water sample listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8015 for Total Petroleum Hydrocarbons (TPH) as Extractables.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the method stated above.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section III.

Field duplicates are summarized in Section IX.

The following are definitions of the data qualifiers:

- U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.
- J Indicates an estimated value.
- R Quality control indicates the data is not usable.
- N Presumptive evidence of presence of the constituent.
- UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.
- A Indicates the finding is based upon technical validation criteria.
- P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Calibration

a. Initial Calibration

Initial calibration of compounds was performed as required by the method.

The percent relative standard deviations (%RSD) of calibration factors for compounds were less than or equal to 20.0%.

b. Calibration Verification

Calibration verification was performed at required frequencies. The percent differences (%D) of amounts in continuing standard mixtures were within the 15.0% QC limits.

The percent difference (%D) of the second source calibration standard were less than or equal to 25.0% for all compounds.

III. Blanks

Method blanks were reviewed for each matrix as applicable. No total petroleum hydrocarbons as extractable contaminants were found in the method blanks.

IV. Accuracy and Precision Data

a. Surrogate Recovery

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

b. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

c. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

V. Target Compound Identification

All target compound identifications were within validation criteria.

VI. Compound Quantitation and CRQLs

All compound quantitation and CRQLs were within validation criteria.

VII. System Performance

The system performance was acceptable.

VIII. Overall Assessment of Data

Data flags have been summarized at the end of this report if data has been summarized.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Field Blanks

No field blanks were identified in this SDG.

Boeing Realty Corp., Bldg C-1 Long Beach Total Petroleum Hydrocarbons as Extractables - Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG

Boeing Realty Corp., Bldg C-1 Long Beach Total Petroleum Hydrocarbons as Extractables - Laboratory Blank Data Qualification Summary - SDG IQC1776

No Sample Data Qualified in this SDG



17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax: (949) 260-3297

TAIT Environmental/Boeing 701 N. Parkcenter Drive

Attention: Mehmet Pehlivan

Santa Ana, CA 92705

Project ID: Boeing C-1 Long Beach

EM-2701

Report Number: IQC1776

Sampled: 03/15/07

Received: 03/15/07

HYDROCARBON DISTRIBUTION (EPA 3510C/8015 Mod.)

Analyte	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	% of Total	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: IQC1776-04 (MW3	017_WG031	507_0001	- Water)						
Reporting Units: mg/l									
EFH (C6 - C44)	7C22062	0.094	0.47	4.9	1	100	3/22/2007	3/22/2007	
EFH (C6 - C7)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C8 - C9)	7C22062	0.094	0.094	0.15	1	3	3/22/2007	3/22/2007	
EFH (C10 - C11)	7C22062	0.094	0.094	0.79	1	16	3/22/2007	3/22/2007	
EFH (C12 - C13)	7C22062	0.094	0.094	1.1	1	22	3/22/2007	3/22/2007	
EFH (C14 - C15)	7C22062	0.094	0.094	1.4	. 1	29	3/22/2007	3/22/2007	
EFH (C16 - C17)	7C22062	0.094	0.094	0.93	1	19	3/22/2007	3/22/2007	
EFH (C18 - C19)	7C22062	0.094	0.094	0.29	1	6	3/22/2007	3/22/2007	
EFH (C20 - C23)	7C22062	0.042	0.042	0.084	1	2	3/22/2007	3/22/2007	
EFH (C24 - C27)	7C22062	0.042	0.042	0.045	1	1	3/22/2007	3/22/2007	
EFH (C28 - C31)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C32 - C35)	7C22062	0.094	0.094	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C36 - C39)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
EFH (C40 - C44)	7C22062	0.042	0.042	ND	1	N/A	3/22/2007	3/22/2007	
Surrogate: n-Octacosane (40-125%)				97 %					

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced,

except in full, without written permission from TestAmerica.

TestAmerica - Irvine, CA Nicholas Marz Project Manager

IQC1776 <Page 18 of 37>

SDG#	:16591B8 ::IQC1776 atory:_Test America	VA	LIDATIO	N COMP EPA Re			SS WORK Tier 3	SHEET	Date: 4/26 Page: _/_of _/ Reviewer:
METH	OD: GC TPH as Extracta	ables	(EPA SW	846 Metho	od 801	5)			
	imples listed below were ion findings worksheets.	revie	wed for ea	ch of the fo	ollowi	ng va	lidation areas	s. Validation find	dings are noted in attached
	Validation /	Area						Comments	
l.	Technical holding times			Δ	Samp	ling da	ites: 3	5/07	
Ila.	Initial calibration			A				•	
ilb.	Calibration verification			Δ					
III.	Blanks			Δ				· · · · · · · · · · · · · · · · · · ·	
IVa.	Surrogate recovery			A					
IVb.	Matrix spike/Matrix spike dup	licates	•	N	ch	سل	speci)	كبعثر	
IVc.	Laboratory control samples			A	Le	s k)) /	l .	
V.	Target compound identification	on		Δ					
VI.	Compound Quantitation and	CRQL	s	A					
VII.	System Performance			Δ					
VIII.	Overall assessment of data			Ą					
IX.	Field duplicates			N,					
X.	Field blanks			N					
Note: Validate	A = Acceptable N = Not provided/applicable SW = See worksheet d Samples:		R = Rin	o compounds sate eld blank	s detec	ted	D = Dupli TB = Trip EB = Equ		
1 1	WW3017-WG031507_0001	11	7022	062-B	UK)	21		31	
2		12				22		32	
á		13				23		33	
4		14				24		34	
5		15				25		35	
6		16				26		36	
7		17				27		37	
8		18				28		38	
9		19				29		39	
10		20				30		40	
Notes:									

LDC #:_	165	9/138
SDG #:_	pu	cover

VALIDATION FINDINGS CHECKLIST

Page:/of²	2
Reviewer:	_
2nd Reviewer:/	

Method: ____ GC ___ HPLC

Method:	GC	HPLC					
	Validation Area		Ye	s N	0 N	ΙΑ	Findings/Comments
Reference linearing anness							
All technical holding times were	e met.			1_		\dashv	
Cooler temperature criteria was	s met.			1	120174000	market	
Daniel alloción esta				Ŧ			
Did the laboratory perform a 5 p	point calibration prior	to sample analysis?		4-		4	·
Was a linear fit used for evalua deviations (%RSD) < 20%?	ation? If yes, were all p	percent relative stand	dard	1	_	_	
Was a curve fit used for evalua used?	ition? If Yes, what was	s the acceptance crit	eria	<u> </u>	4		·
Did the initial calibration meet the	he curve fit acceptanc	ce criteria?		1_		4	
Were the RT windows properly	established?						
ty continuing calleation					1	Ŧ	
What type of continuing calibrat %R	tion calculation was p	erformed?%D	or _	1		\perp	
Was a continuing calibration an	nalyzed daily?					4	
Were all percent differences (%	D) ≤ 15%.0 or percer	nt recoveries 85-115	%?]		\dashv	
Were all the retention times with	hin the acceptance wi	ndows?		1_			
V Blanks				1	T		
Was a method blank associated	d with every sample in	this SDG?		┼	+	4	
Was a method blank analyzed for	for each matrix and co	oncentration?		╂	+	+	
Was there contamination in the validation completeness worksh		s, please see the Bla	anks		1		
V/Seegale sokes							
Were all surrogate %R within the	e QC limits?			1		_	
If the percent recovery (%R) of careanalysis performed to confirm		es was outside QC li	mits, was			1	
If any %R was less than 10 perc	ent, was a reanalysis	performed to confin	m %R?			1	
VII.:Malfix solke/Matrix solke du	olicates						
Were a matrix spike (MS) and m matrix in this SDG? If no, indicat MS/MSD. Soil / Water.						7	-
Was a MS/MSD analyzed every	20 samples of each r	natrix?			-	才	
Were the MS/MSD percent recov (RPD) within the QC limits?	venes (%R) and the r	elative percent differ	ences		0	1	
VIII Laboratory control samples							
Was an LCS analyzed for this SI	DG?			1			
Was an LCS analyzed per extrac	ction batch?			1_			<u> </u>

LDC#: 1659/138 SDG#: u cover

VALIDATION FINDINGS CHECKLIST

Page: Zof L Reviewer: Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	L			
IX.Regional@tality.esseialece.and.@hality/control				-
Were performance evaluation (PE) samples performed?				
Were the performance evaluation (PE) samples within the acceptance limits?				
Xe nangelikompound/dentireation/E				
Were the retention times of reported detects within the RT windows?				
XF competing quantitation/SRQEs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?				
XII System performance				
System performance was found to be acceptable.	·			·
XUII Toverali assessment of dalation				
Overall assessment of data was found to be acceptable.				
XIV Feichholicaes				
Were field duplicate pairs identified in this SDG?		_		
Were target compounds idetected in the field duplicates?				
Were field blanks identified in this SDG?				
Were target compounds detected in the field blanks?				

1659188 SDG #: pre LDC #:

Initial Calibration Calculation Verification VALIDATION FINDINGS WORKSHEET

Page: Reviewer: 2nd Reviewer:

> HPLC METHOD: GC_

The calibration Factor (CF), average CF, and percent relative standard deviation (%RSD) were recalculated for the compounds identified below using the following calculations:

CF = A/C average CF = sum of the CF/number of standards %RSD = 100 * (S/X)

A = Area of compound,
C = Concentration of compound,
S = Standard deviation of the CF
X = Mean of the CFs

				Reported	Recalculated	Reported	Recalculated	Reported	Recalculated
Stan	Standard ID	Calibration Date	Compound	CF (1xOxtd)	CF (1,50 ⁵ std)	Average CF (initial)	Average CF (initial)	%RSD	"RSD
	147	70/6/4	H JA		4. EFX		2787.17	M.14	11-14
		·							
		1						·	
		•							
								·	
		1							
		•							
	_								

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

1659188 LDC #: SDG#

Continuing Calibration Results Verification VALIDATION FINDINGS WORKSHEET

2nd Reviewer: Page: Reviewer

> FPLC METHOD: GC_

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

Average CF(ical)/ CCV Conc.

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

CONCL C 18

see cone LDC #: 1659188

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

P 7	
Page: Reviewer:	

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

GE HPLC

METHOD:

SDG#:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found SS = Surrogate Spiked

				:	-	
Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
as oda cosame	not specified	Qal	97.4363	97	1.6	0
	-					

Column/Detector Spiked Found Recovery Recovery Diffe Reported Recalculated							
Reported Recalculated		Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
					Reported	Recalculated	
	1						
	- 1						

sample ID:						
Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC # 1659113 X SDG#: ** con

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification VALIDATION FINDINGS WORKSHEET

Page:

CC HPLC METHOD:

The percent recoveries (%R) and relative percent differences (RPD) of the laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where

SC = Sample concentration

RPD =(((ssclcs - ssclcsD) * 2) / (ssclcs + ssclcsD))*100

SSC = Spiked sample concentration SA = Spike added LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample duplicate

7022007-13 LCS/LCSD samples:__

	Spik		Sample	Spike S	ample	SOT	-	CSD	2	LCS/LCSD	CSD
Compound	Added (\max\l\ \max\l\)		Conc.	Concentration (ration (7)	Percent Recovery	scovery	Percent Recovery	covery	RPD	D
	LCS U	٥	b !	SOT	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)											
Diesel (8015)											
Benzene (8021B)											
Methane (RSK-175)											
2,4-D (8151)			_								
Dinoseb (8151)											
Naphthalene (8310)											
Anthracene (8310)								-			
HMX (8330)											
2,4,6-Trinitrotoluene (8330)											
日午日	0.	1.0	O	(260	408.0	93	93	18	(%	F	14

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

BOE-C6-0054721

LDC #: 16 591 B8 SDG#:

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

Page: / of 2nd Reviewer: _ Reviewer:

HPLC

METHOD:

Were all reported results recalculated and verified for all level IV samples?

Were all recalculated results for detected target compounds agree within 10% of the reported results?

(A)(Fv)(Df) Concentration=

Example:

(RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured Fv= Final Volume of extract RF= Average response factor of the compound Df= Dilution Factor

Vs= Initial volume of the sample Ws= Initial weight of the sample %S= Percent Solid In the initial calibration

Compound Name__ Sample ID.

Cb - any 七十十

145 b2237,58 L1-L812

Concentration =

(1000)

#	Sample ID	Compound	Reported Concentrations (Recalculated Results Concentrations (Qualifications

SAMPCALew.wpd

Comments:

		I DC i	#16739) /T	ait I													na l								ואו	าส	Res	ıch'	·				
.DC	SDG#	DATE REC'D	(3) DATE DUE	V	OA 60B)	N	ln .	Di Ga	ss. ses 75)	A		N	H ₃ 0.3)	CI,:	SO ₄ PO ₄ 0.0)	NO	crossocialists	s	=	тс		20020000000000		19 \			ig			 				
Matri	: Water/Soil			w	s	W	s	w	s	W	s	W	s	W	s	W	S	W	S	W	s	W	s	W	s	w	s	W	s	W	S	W	S	.W
Α	IQC1612.	05/03/07	05/24/07	6.	.0	2	0	2	0	2	0.	2	-0-	2	.0	2	0			2	0.	Tie												
В	IQC2470.	05/03/07	05/24/07	0	0	0	0.	0	.0	0.	0	-0	0	0	0	.0	0.	. 1	0	.0	0	Tie	er I											
В	IQC2470	05/03/07	05/24/07	4	0	1	0.	1	.0	1	0	1	.0.	1	0	1	0.	1	.0	1	0													
С			05/24/07	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0													
ヿ																																		
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\dashv					\vdash																												\Box	
otal	B/SC			11	0	4	0.	4	.0	0.	0	4	0	4.	0	4	0	3	-0	4	0	0	.0	0	0	-0	0	0	0	.0.	0.	0	-0	0.
/(CII	D/ 500																	J					.0	<u> </u>						.0.			<u> </u>	<u> </u>

Shaded cells indicate Tier III validation (all other cells are Tier II validation). Sample counts do not include MS, MSD, or DUP's.

16739ST.wpd